

# THROUGH BASQUE TO MINOAN



TRANSLITERATIONS AND  
TRANSLATIONS OF THE  
MINOAN TABLETS

*By*

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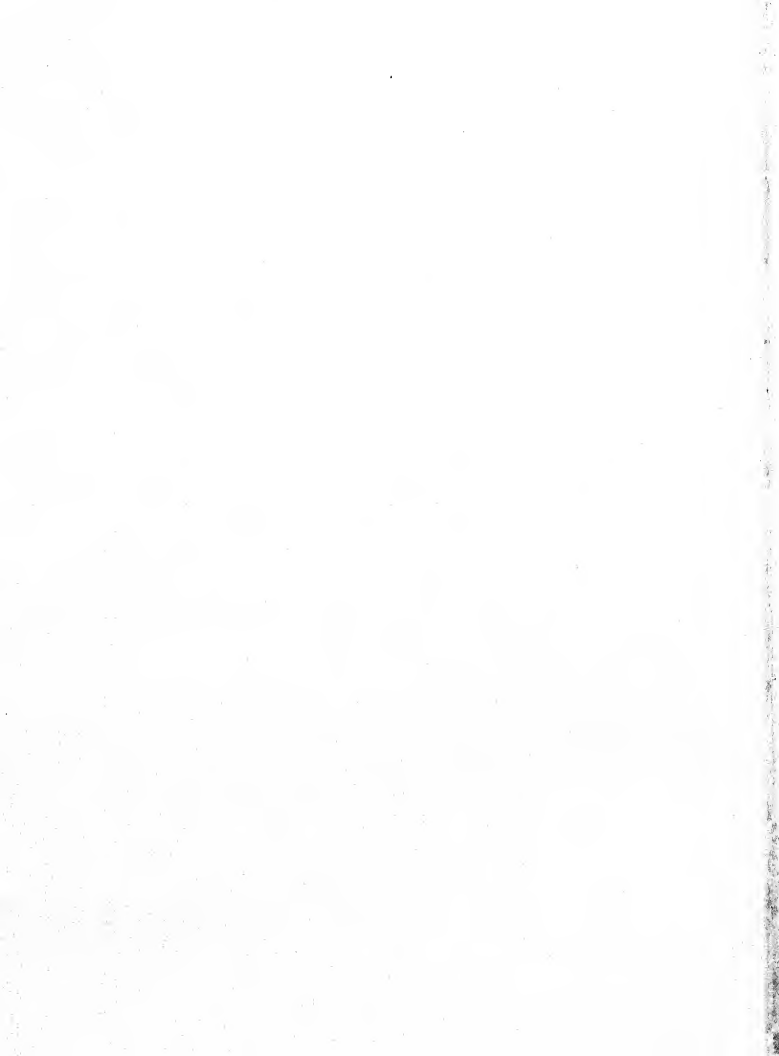
## PREFACE

THE following essay, which is the result of some years' work, is believed to be the first attempt to read Minoan with the help of Basque. Further research will no doubt modify details, but it is claimed that the identity of the two languages, for all practical purposes, is established, in which event the study of Minoan gains a support even greater than that which Egyptology derives from Coptic.

That study, if the above contention is correct, is well worth while. The intuition of Sir Arthur Evans, that the pictographs concealed a literature, proves to be well founded. Not only is there a literature, but it is the lineal ancestor of the Hellenic—a Greek form in a Minoan dress. So much is clear from the few specimens here translated. They promise better things to come, but for those we must wait until we have the contents of the library of which the first two tablets probably formed part.

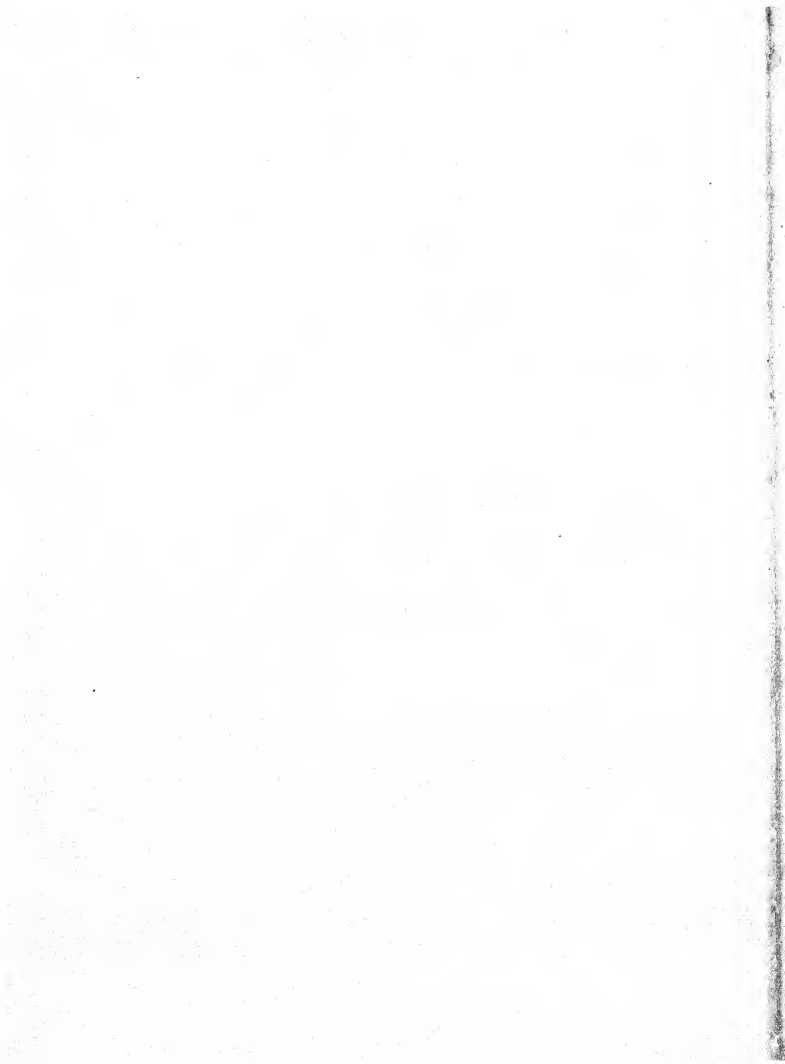
In the meantime, on the present hypothesis, some eighty signs have been identified, most of which are repeated often enough to check their values. Others remain to be added in order to complete the key, but those already transliterated should be sufficient to facilitate the translation of parts, at least, of any future material and the identification of further signs. For this reason the writer would ask for careful consideration of a theory which even if it is antecedently improbable, does seem to work in practice.





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## THROUGH BASQUE TO MINOAN

SINCE Sir Arthur Evans made his great discovery of the Minoan characters, they have remained a riddle. Attempts to solve it have been unsatisfactory, and it is usually said that they will be, in the absence of a bilingual inscription.

The statement is not entirely convincing, for it is a maxim that given sufficient time and material, any cipher can be read—a *fortiori*, when the object of the writer is not to conceal his meaning but to convey it. Still, such an inscription would no doubt be invaluable. As it is not forthcoming, is it possible to find a substitute?

It is agreed generally that the Minoan speech is unlikely to be of Aryan type. Now on the north side of the Mediterranean there survives a non-Aryan language, well known, but little studied in this country—the Basque. It therefore seemed to be worth while to try the experiment of assigning Basque values to the characters, on the chance that the two languages might be nearly related. Such a method must obviously begin as pure guess-work, but if it succeeded ultimately in producing a series of values which were constant, and everywhere gave an intelligible and coherent sense, it might fairly be assumed that the key to the script was found.

The results were interesting. Not only did the system yield a language indistinguishable (at present) from Basque, but it revealed unmistakable references to Hellenic deities, several old Greek names, and three poems, one in hexameter verse, one in elegiac, and one in couplets consisting of a hexameter and a line of three dactyls and an odd syllable, closely resembling the metre of the XIIth *Epode* of Horace.

The object of this essay is to establish these conclusions, if possible, and to convince students that this is the most profitable line of research. It will, of course, be realized that the method is necessarily tentative, and that the deductions will no doubt be modified as more material becomes available. The argument, however, would have been obscure and wearisome if all the state-

ments had been qualified, and they are therefore advanced positively, in spite of the inevitably dogmatic tone which results.

It will be advisable to begin by mentioning the principal features of the key-language. The Basque contains six main dialects, the Biscayan, Guipuzcoan, Labourdin, Souletin (a very corrupt form), and the High and Low Navarrese. All are formed on the same model, though there are variants in vocalization and aspiration, and sometimes in words. The Navarrese appears to possess the largest stock of words peculiar to itself, and in this respect is probably the oldest. The language is written phonetically; the vowels are pronounced as in Latin, *ch* is sounded as in 'church', *r* is very soft, *g* is hard, *s* has the sound of *sh*, *z* is pronounced as *s* in the French dialects and as *th* in the Spanish. The diphthong *ia* is practically the same as *i*, and *j* has the sound of *y* in the French dialects and of the Spanish *j* in the others.

The language is agglutinative, and contains a number of compound nouns. Genders do not exist. There are no declensions; case endings are replaced by suffixes with the force of prepositions. Articles and adjectives follow their nouns. The singular definite article is *-a*, the plural *-ak*, but the latter also denotes the singular agent. Conjugations in the ordinary sense are limited—the periphrastic form in which the participle is constructed with auxiliaries is more common—but the verbs have a large number of agglutinated forms, e.g. 'I-give-it', 'I-give-it-to-him', &c. There are a few irregular verbs, but no other grammatical exceptions. Constructions run backwards; thus 'I see the man' is *Dakusit gizona*, lit. 'It see I man the'. Such is the barest outline of the language, which can be studied in the grammar and dictionary of Van Eys, the dictionary of Azkue, and the grammar of Larramendi. In applying Basque to the transliteration and translation of Minoan, all dialects (except the Souletin) have been used indiscriminately. This seems to be legitimate, as the difference between them is no greater than e.g. that between North and South Welsh, and we cannot yet say which is nearest to the common original. It may be mentioned here that owing to the absence of a literature the language is highly fluid, the aspirate is uncertain, and inversions are common. Thus the suffix '*-less*' occurs both as *-gabe* and *-bage*.



Compounds which are not actually met with in modern Basque, but are correctly constructed, are indicated by an asterisk. The language has admittedly lost many old words, which have often been replaced from Romance tongues. It is also probable that in its earlier days it had a wider range of thought and consequently a larger vocabulary, whilst its structure would enable it to coin words as required for literary purposes. As long as the elements are correct, there seems to be no reason to reject a compound merely because it is not found to-day. In the same way words which survive only in compounds may be regarded as independent for the present purpose.

The Minoan, though it is so nearly akin to Basque, presents certain peculiarities of a more primitive speech. It appears to make no distinction between B, P, and M, D, T, and N, G and K, L and R, O and U. The consonants in fact seem to be those of the Greek alphabet from  $\beta$  to  $\lambda$  inclusive, with the possible exception of  $\theta$  and  $\kappa$ . In transliterating, the following equivalents have been used:

<i>Basque</i>		<i>Minoan</i>	
B, P, M	=	B	
D, T, N	=	D	
L, R	=	L	
G, K	=	Q	(a provisional symbol, not a separate sound)
S	=	S	i. e. s'. This should perhaps be written zz, Gk. σσ.
Z	=	Z	
practically identical TS or CH	=	DZ	
J	=	Y	
O, U	=	U	

The script is syllabic and ideographic, the ideograms being supported on occasion by syllabic coefficients. The former may appear at the beginning, in the middle, or at the end of a word. Generic determinatives and alphabetics are both absent. The usual practice in writing is to choose a sign ending with the first syllable or syllables of the next, in order to carry on the sound. As the language is markedly homonymous, the authors of the script were able to select signs with several meanings, an obvious convenience, whilst the general poverty of sound prevented the

syllabary from becoming overloaded. Instances will be found below. Homonymity implies a quick ear and an agile mind, and suggests a nation of punsters, as the later Greeks undoubtedly were. The seals provide ample evidence of this.<sup>1</sup>

The clumsiness of the characters has often been remarked. With it is associated the practice of showing only half the object. Both point to an impatience with the written word, which it must be admitted was awkwardly constructed and primitive.

The foregoing statements will now be tested by the examination of several tablets. In the course of this it will be necessary to refer from one to another, sometimes to signs whose value is proved later on. This drawback is inseparable from a method which consists in applying a series of hypothetical values, and endeavouring to show that they fit everywhere. The results are summarized in tabular form at the end. If any one will have the patience to work through the inscriptions, using this table, it will be found, I believe, that the values, most of which are repeated, do fit in every case.

### B.M.

The first tablet to be considered is that here designated B. M., figured on Pl. XXXIII of Dr. Hall's *Aegean Archaeology*. This tablet has the advantage of telling a connected story, and as the words in many cases are written in full, it is especially suitable for our purpose. The script runs from right to left, beginning at the right-hand top corner.

┐ A coffin of the Hagia Triada type, *ilubi*, B. *ilobi*, lit. a death or corpse vessel. The word recurs below in the same sense, but is otherwise a ἀπαξ λεγόμενον at present. It is to be distinguished from the somewhat similar sign shaped as the symbol of the planet Uranus.

≡ A beard, *bizal*, B. *bizar*. As it occurs as a decoration in a marine subject, it may also stand for a univalve of contorted type.

<sup>1</sup> One Minoan pun *may* have come down to us in the Voyage of Wen Amun, where the Sakkara chief says ironically, 'We are the guardians of the helpless'. 'We are the guardians' in Basque is *Zaiak gara*.

Ɑ Half a skein of thread, *bida*, B. \**bida*. The word *bi* occurs in Basque in *izpi*, a thread, and *arizpi* (?*Arisbe*) with the same meaning. The sign denotes the word *bi* + the article *a*, the *d* being inserted to avoid hiatus, as in B. *bida*, a pair. It could also be used to write the latter word, and *bidea*, 'the road', with which sense it will be found on the Phaistos Disk. Note that a further contraction of this cursive form would give Ɱ, βῆτα. The word *may* occur in τολύπη (?*idzuli-bi*, a wound-thread).

†† Two men, *albi*, B. *ar bi*, man-two, a form of false dual which will be encountered again.

‡ A conventional drawing of a side-face with two lips; *au*, B. *ao*, mouth. It occurs below in the same sense.

⋈ One thread encircling another, *izbi*, B. *izpi*, thread. It occurs below in the same sense.

Ɱ A comb, whose value is shown by the accompanying signs to be *biduqali*. It is not absolutely certain whether this sign corresponds to the double comb of the Phaistos Disk, which is spelt *bidzuqali*. If they are the same, the *d* of *eduqi* (the next sign) must sometimes have been softened. Cf. the vulgar Eng. 'ejucate', and the Italian 'giorno, oggi', &c. The sign recurs in S.M. 13 (c) between the gate and hide, but as neither of these forms part of the word it is impossible to confirm the value from that phrase, which runs 'the hide-comb gate' or 'the double comb leather' according to the direction in which it is read.<sup>1</sup>


† A pillar, *eduqi*. The value is given in S.M. 21, where the word is spelt in full, *ede* (strap) *eduqi* (pillar) *uqi* (cestus). The sign occurs frequently, and always, apparently, where it is not ideographic, in the sense of 'holding'. The pillar was chosen probably as the member that holds up the roof. In this sense it does not occur in Basque (racial conditions would hardly lend themselves to pillared architecture) but *eduki*, 'hold' in the sense of 'have', is one of the commonest auxiliaries. The

<sup>1</sup> The second reading is probably the correct one, though 'the curry-comb gate' is not impossible as a term for a gate with flanking towers, the ground-plan of which would be in the form of a double comb.

meaning is literally 'strap-hand' i.e. round the object. For *uqi*, cestus, cf. B. uk, uka, in ukondo, ukalondo, elbow; ukarai, wrist; ukabil, fist; ukitu, touch, handle. The word appears to be an old one, signifying both hand and, by extension, forearm.

- 3) A flesh-hook, *alaqi*, by metonymy for meat, B. aragi. Cf. the use below of the vine-dresser's knife for wine. A common word like meat would be likely to have a sign, and as it is hard to find one distinctive, it is easy to see how the *kreagra* came to be chosen. This shape is found in Etruria. In the present instance the sign has its primitive meaning, but it appears to be used homonymously in the sense of 'likewise', e.g. in S.M. 28 and 30 examined below.

☞ A fly, *euli*, B. uli and euli. The hieroglyphic form will be found on the seal figured in S.M. P. 20 B., where it combines with others to spell *idzuli* (B. itzuli or itsuli) 'turn'. It is impossible to go into the large and important subject of the seals at this point, but it may be observed that the word *idzuli* occurs on most of them as part of a formula which will be considered later. The sign here is ideographic.

✕ A crown or garland, *qalia*, B. gara, 'head', a word surviving in garondo, 'nape', lit. 'head-place', garbal and garsoil, bald-headed. The analogy between crown=garland and crown of the head seems to hold as in English.<sup>1</sup> This sign would be useful, as it would serve to write the common ending *qali* (B. garri) with the definite article *a*, and also the 1st pers. plur. pres. ind. of *izan*, to be. For its use in the first sense, see S.M. 26, line 2 (r. to l.) ☞ , gate, fist, crown; *byiluqqalia* (B.\*bilukgarria) 'the boxer', and below, *edadiqqalia*, 'the thirsty one'.

✕ Two flowers apparently tied together, *bilui*, from *bi-ui* with connecting *l* (B. r, as in biretan for bi-etan, &c.). The lower part of the sign is obliterated, but the upper is clear. It recurs below in conjunction with the single flower, *ui*, q.v. The

<sup>1</sup> An apparently intermediate form, a head with a spray above it, is figured in S.M. P. 101, 102.

metre here requires a trisyllable. In S.M. 30 it represents B. beroyei, 'for these'.

‡ Conventional drawing of a hide, the four legs indicated by two strokes across a vertical line. (For the pictorial form see P.D.) *Adzal*, B. achal. Also per homon. for achol, 'câre'. See below.

‡ Pillar. *edugi*, see above.

‡ Half a wine-jar, conventionalized; *eduqaldu*, B.\**edukardo*, a 'hold-wine'. This common sign is not easy to recognize at first sight, owing to the dimidiation. Its true form is found on the P.D. where it occurs with the same coefficients *edugi* and *aldu* (see next sign). The context in both cases shows that it is not a lyre. The vertical strokes sometimes taken for strings represent the liquid contents, as elsewhere, e.g. S.M. P 76 c, grain in a jar is suggested by dots. For other instances of the ideographic use of this sign see S.M. 26, line 1 and *ibid.* 25, line 4; for its use homonymously see S.M. 26, line 3, and 30, the 4th sign from the right. These are considered below.

‡ The upper part of a vine-dresser's knife, signifying wine, *aldu*, B. ardo. The sign was no doubt chosen on account of the difficulty of getting one which would depict wine unmistakably. Cf. *alaki* above. The complete form will be found on the Phaistos Disk. It has been interpreted as a boat, but although a boat of this form does occur, the context shows that the sign cannot well have that meaning in any of the published texts.<sup>1</sup> The present form shows the curved handle and the guard (the projection on the left). The sign is also available to write *aldu*, 'take', B. artu, and several verbal endings.

[:] Drops falling through a tube. Assuming the value *aldu* to be correct for the sign above, we might reasonably expect the present sign to be its syllabic coefficient, as the tendency of

<sup>1</sup> There is reason to believe that the word for ship is *uladzegid*, a 'cutwater', and this may account for the connexion. The point will be considered later in relation to the seals.

this inscription is to write words in full. The value would then be *du*, a common Basque ending. This is confirmed by the use of the sign in the last line, where it combines with *izbi* to form *izbidu*, B.\**izpitu*, 'threaded'. In that case we may compare B. *thu*, 'spit'. This word is taken from the French Basque dialects, which favour an aspirate; the corresponding form in the Spanish dialects should be *tu*. There may be some connexion with *itoi*, a drop.

The sign could be used to write numerous words ending with *du* and *dun* in Basque.

✠ A man delivering a blow, *yasa*, B. *jasa*, 'a striker, smiter', a word which is obsolete as an independent form, but survives in *eurijasa*, a rain-storm. *Jasa* is evidently connected with *jasarri*, 'strike'. The sign will be found in S.M. 26, line 2 (where the figure is headless) with the same meaning, and in S.M. 21, but the latter is too fragmentary for translation. It could also be used to write the place-ending identified by Dr. Hall with -ασσος. (? the Pyrenean *jasse*.)

☉ A circle containing 3 dots. Possibly a shield, but more likely a wheel. In other (? later) cases the solid disk is replaced by a spoked form. The Basque for wheel is *kurpil*, 'bent round', but the metre everywhere forbids that value in the three poems which are known to us. Tested by this the word must be either a monosyllable or a disyllable beginning with a vowel. It is evidently in use as a diminutive, and serves to form patronymics, as will be seen from S.M. 26. The B. diminutive is *ch*, *cho*, or *cha*, with an antecedent euphonic vowel if necessary. Provisionally, therefore, the value may be taken as *iadzua*, which may survive in B. *itzuli*, 'turn round'. This from its length is evidently a compound, but cannot be resolved at present. I suggest that it is derived from *iadzua* + *ul* (the obsolete *ur*, 'a foot', surviving in *urhats*, 'footstep', &c.) + the verbal ending *i*, the whole signifying 'wheel-foot'.

✂ The vine-dresser's knife, *aldu*; see above.

ψ A flower, *ui*. The modern B. is *lora*, but this is evidently derived from the Spanish or Provençal, and does not help.

The word is probably to be found in B. oihan, oyan, 'a wood', qy. = 'flowers there' (see note on edan below), and possibly in oihala, oyala, 'a sheet'. This is usually derived from oi 'bed', but as the latter is also thought to be a corruption of obi, the derivation is uncertain. If oyala is from \*oi, 'flower' + ari, its meaning would be 'flower-thread', i.e. flaxen as against woollen. It may be noted that Aias Oileos was conspicuous for his linen corslet. (Il. ii. 529.)

If the value *ui* is correct, the present sign, with that preceding and following, spell *aldu-ui-iaq*, B. artuik, 'take' (imper.) On the P. D. Face B, line 7, the combination of the flower, bow, and conical height spells *-uiliaq*, B. -oilleak, the ending of choilleak, 'barren', whilst in B. M. below we find it used as an exclamation, *ui!* (oï, ohé, oo-ee!) which all make perfectly good sense.

⌘ The next sign, which occurs in several forms, appears to represent a conical eminence of some kind, and is provisionally rendered *iaq* or *iq*, B. ik, 'height'. (The pronunciation of ia and i in B. is practically the same.) With this value it would be possible to write the plural, the agential suffix, the partitive suffix, the past participle, and the imperative singular, besides using the sign as a connecting link. It would constantly occur, therefore, as in fact it does.

ψ A harness-stand, *edad*, B. \*edan, from *ede*, 'strap', B. ede, + *ad*, B. an, 'there' = 'strap-there', i.e. the place of the strap. For this construction cf. the termination -anda, where an apparently combines with da, 3rd pers. sing. pres. ind. of izan. Thus Labraunda or Labranda would mean 'the labrys is there' (B. order, 'there is') and Alabanda, 'the maiden is there', B. alaba an da.<sup>1</sup> In the sense of harness-stand the sign occurs in S.M. 24 among a lot of stable gear. It is used homonymously for the verb *edad*, B. edan, 'drink' (as here) again in S.M. 24 with a three-legged square receptacle *edadubi* or *edadtugi*, 'a drinking-trough', and constantly on seals for the locative ending (B. etan).

<sup>1</sup> It was renowned for its numerous ψάλτριαι (Strab. s.v.), but the reference might be to a goddess.

⌘ A net, *zale*. The B. has two words, *zare* and *sare*, signifying respectively 'net' and 'basket', and the meanings are often confused. That *zale* is the correct value in Cretan seems to be indicated by the use of the sign in S. M. 25, line 9, 3rd group from the right, *equdze-equ-qud-zale* = B. *egonzale* (now corrupted into *egoille*) 'a stay-at-home', where *zale* is the occupational ending. So again in *eqidzale*, B. *eginzale*, in the last line of S. M. 26; see below.

‡ A hide, *adzal*, see above.

|| 4 strokes, *lau*, B. *lau*, 'four', here used without numerical force as a connecting link between the last and the next sign.

▷ A mouth, *au*. See above.

⌘ A thread, *izbi*. See above.

⌘ Two arms embracing, *byilidzedud*, from *idzedud*, B. *ichedon*, compounded with *byi*, 'two', B. *bi*, with euphonic *l*, B. *r*, or *byul*, breast, B. *bular* (where the ending is probably the attracted article). If *idzedud* has the present B. sense of 'expect', the meaning is literally, 'doubly expecting', or 'breast-expecting', both in the sense of 'embracing'. It would seem to be more probable, however, that at this early date the word had a close connexion with the verb *ich*, 'close' (from which V. Eys derives *ichedon* = *ichegon*) and that the meaning is really 'twy-closing' or 'breast-closing'. This sign fortunately has a complete set of syllabic coefficients, so that its value can be determined with some confidence. It may seem strange at first sight that a quadrisyllabic sign with a not very common meaning should have been created, when it would have been possible to spell out the word. The probable explanation is that it signifies per homon. *byilidzedad*, B. *biritchetan*, 'in duplicate', a word which often occurs on seals. For the use of the sign in this way see S. M. P. 6 (b), P. 31 (b) &c.

↗ An arrow, *byiliadx* or *byiliadzi* B. \**bilatch*. This is not an existing B. word (many have been lost), but its value may be ascertained from its context here, and from the sealing on the arrow-chest, S. M. 22. The verbal inscription there reads in



two cases out of three (in the third the signs have been misplaced) door, door-handle, hide, i.e. *byili-byiliadz-adzal* = *byiliadzadzal*, or 'arrow-hide', i.e. a leather bag full of arrows, no doubt laid up in a chest and sealed. The division of the word is probably *byi-liadz*, or *byi-liadzi*, 'twy-barb' or 'twy-barbed', the Basque equivalent of which would be *bilatch* or *bilatchi*, from *latz*, 'sharp'. Latch is used alone for a form of rock-cactus.

✕ A knotted thong, *ede*, strap, B. *ede*. This appears to be a conventionalized form of the prisoner of the P. D., the upright stroke with recurved top representing the upper part of the figure (this convention is usual), the curved line the arms, and the horizontal and vertical lines the tie with ends hanging down. An intermediate hieroglyphic form from which the present sign is derived will be found in S.M. 8, where the signs composing the first phrase read from right to left; two bound arms, a fist (cf. S. M. 26 below), two of the small cephalopods identified by Sir Arthur Evans with *καλαμάρια*, i.e. *ede-uqa*, literally, 'thong-arm', i.e. cuttle-fish (? *τεῦθος*).<sup>1</sup>

The sign is used, as already stated, to write the first syllable of *eduqi* (S. M. 21 ad init.) and in composition ideographically in S. M. 19, last group (r. to l.) *ede-ubi* 'a strap-vessel', i.e. a bucket for filling troughs (see the last sign for its picture complete with strap), and again in S. M. 24, last line, examined below.

☞ A sandalled foot in profile *uđ*, B. *oñ*.

☞ Coffin, *ilubi*.

☞ Pruning-knife, *aldu*

☞ Tube with drops, *du*

☞ Harness-stand, *edad*

☞ Two flowers, *bilui*

☞ Flower, *ui*

} See above.

→ Bow, *iali*. There is no word of this kind in modern Basque, but it does seem to survive in *illargi*, moon, i.e. crescent.

<sup>1</sup> The reason of the *two* cuttle-fish is explained below, p. 68.

The derivation of this word from *il*, death+*argi*, light (substantive) is not very satisfactory. It seems more likely to be 'bright moon' (*argi* is also an adjective) in view of the fact that most names of months end in *-illa*, and that the compounds of 'moon', *ilbera*, *ilzar*, &c., regularly omit *argi* in the Spanish dialects. It is the case that wherever it is found—and it is common—this sign supplies the value *iali* or *ili* (which, as stated above, are practically the same in B.) and this value has therefore been assigned to it provisionally.

Ψ A pillar or trunk with two horns attached, *idaqu*. The value is to be found in S. M. 25, line 3, group 2, where it is followed by the cursive signs of a tree and a pillar with a projecting peg. The first everywhere gives the value *ida*, B. *eta*=and, and the second that of *qu* (B. *ko* and *go*), both suffixes in common use. These signs will be discussed more fully in their place.

⌘ A thread-winder, *idzuli*, B. *itzuli*, *itsuli*, *ichuli*, 'turn round'. The hieroglyphic form is found in S.M.P. 31, &c. It is possible that the word survives in Gk. *τολύπη*, *qy. idzuli-bi*, wound-thread. It is evidently a fork of thin flexible wood or metal round which a thread is twisted. The fork is then revolved until a ball is formed, when it is pulled out; the flexible sides, whose outward curve has prevented the thread from slipping off, yield to the pressure, and the ball is left with a hollow middle, as nowadays.

⌚ A large cup or spouted vase, *qadi*. This word, not unnaturally, does not occur in Basque. Its value has been derived from two other inscriptions: (1) S. M. 26, line 5, group 1 (r. to l.), where it combines with the torch and wheel-signs to spell *Qadibidzua*, *Ganymede*. For the torch, *bidz*, *bidzu*, see S. M. 28. (2) S. M. 25, line 4, second group from the right. Here it is followed by the pillar and a herald's staff formed exactly as the astronomical symbol of Mercury. We thus have (r. to l.) vase-*edugi*-herald's staff. The word *caduceus* naturally occurs to one's mind, and prompts the reading *qad-edugi*, 'vase-holding', i. e. a herald, in allusion to his function as libationer. See remarks *ad loc.*

⌘ A gate, *byili*. Gk.  $\pi\acute{o}\lambda\eta$ . This sign is constantly used in writing words beginning with bi in B., e.g. S. M. 25 *passim*, and also serves as here and in S. M. 8 to help in spelling *ibyili* or *ibyuli*, 'walking', B. *ibilli*. It almost looks as though there were some connexion between a gate and walking out. Cf. Eg. pr.

⌘ Half an arch surmounting a star, *izaledugi*, B. *izartoki*, the sky, lit. 'star-place' or 'star-hold'. The full form is found in the altar-inscription figured in S. M. 8. It is not found with syllabic coefficients, but the value is confirmed by the fact that it appears to be used on occasion for *izali eduqi*, B. *izari eduki*, 'holding measure', i.e. 'keeping time'.

⌘ A thread, *izbi*

⌘ Drops in a tube, *du*

⌘ Harness-stand, *edad*

⌘ Cone, *iq* or *iaq*

⌘ Crown, *qalia*

⌘ Bow, *iali* or *ili*

⌘ Horned pillar, *idaqu*

⌘ Thread-winder, *idzuli*

See above.

If these values are now written out in order, the overlapping of the signs is evident:

*Ilubi bizal bida albi au izbi biduqali eduqi alaqi euli*

*Qalia bilui adzal eduqi eduqaldu aldu du yasa iadzua*

*Aldu ui iq edad zale adzal lau au izbi byiliadzdedud byiliadz ede uđ ilubi*

*Aldu du edad bilui ui ili idaqu idzuli.*

*Qadi byili izaledugi izbi du edad iq qalia ili idaqu idzuli.*

Dividing this into words we obtain the following result; the Basque and English equivalents are interlined; the elided syllables are bracketed:

M. *Ilubiz* | *albidal*(bi), *au* | *izbiduq*(i), | *alag*(i) *e*(u)li

B. Illobiz    armiarna    ao    izpiduki,    aragi    euli

E. In or with a    a spider    mouth    thread-    a flesh    fly  
coffin, grave                            holding,

M. *Qalia bil*, | *uādzal*, || *edugaldu yasia*|*dzua*:

B. Gara bil \*oi achal \*edukardo jasacha

E. Head round, flower skin, holdwine taperling:

M. *Alduiq*, | *edadzal(e)*|| *adzal*, *au*|*iz byiliadz*|*edud il*|*ubi*

B. Artuik edanzale, achol, aoz \*birichedon ilobi

E. Take, drinker, care, mouth embracing a grave,  
with coffin,

M. *Aldu ed*|*ad* — *bilu*|*i*! || *Ili da*|*qu idzu*|*li*.

B. Ardo edan — \*biroi! Ili dago itzuli.

E. Wine drinking—twice ohé! Dead he has spun round.

M. *Qad'ibiyili*, *izaleduqi*, *izbidu*, *edadiqqalia ili daqu idzuli*.

B. — ibilli izari eduki, \*izpitu, edangarria il dago itzuli,

E. Wine-cup measure threaded, the thirsty dead has spun  
walking, keeping, one round.

#### TRANSLATION

A spider in a web, holding thread in its mouth; a flesh-fly, round-headed, flower-skinned, the little wine-jar tapper. Take care, drinker, embracing a tomb with the mouth, drinking wine—alas! alas! He has spun round, dead!

*Gloss.* Walking leisurely on the wine-cup, snared, the thirsty one has spun round dead.

It is a little disconcerting at first to find an elegiac Muiopotmos emerging, but all suggestions as to the nature of these inscriptions have been purely speculative, except in those cases where a string of items is obviously given. After all, a composition of this kind is only what might be expected from the Minoan genius. It is quite in the spirit of the Greek Anthology. Indeed, it may be questioned whether the later epigram does not owe its existence to the Minoan practice of tablet writing. It is a poem of a few lines which could be got into the compass of a strip of clay.

#### NOTES

*Ilubiz*. In or with a coffin or grave, i.e. *ilubi* + *z*, the instrumental suffix.

It is sometimes adjectival, e.g. *zillarez*, 'of silver', sometimes locative, *zaldiz*, 'on horseback', and corresponds according to V. Eys to the French à, de, par, avec. The phrase recalls the trap-door spider, which is found in Crete, but the context suggests a web, perhaps regarded as a grave full

of dead flies. If any description of tunny-fishing is ever found, *ilubi* might be expected to represent the camera della morte.

*Albidalbi*. The B. *armiarma* is one of several names for spider. Looked at in the light of this text, it would seem to be derived from *ari-bide-arbia*, 'the thread-way round-one', cf. O.E. 'spin-cob'. *Arbi* or *harbi* = turnip, presumably from the shape. The word seems to recur in B. *ainharba*, another name for the insect. The spider figured on seals is, I believe, a rebus, and does not bear on the question.

*Au izbiduqi*. It was commonly believed that the thread came out of the spider's mouth. The epithet is probably literary, not descriptive of current action.

*Qalia bil, uīadzal*. Observe the inversion; noun, adjective—adjectival noun, noun. *Qalia* has been discussed under the sign. *Bil* appears to be an old B. word meaning 'round' (in every sense) and to be found in *bildu*, 'collect together', 'round up', *bilur*, 'noose, halter', 'round-close', *ukabil*, 'a fist', 'hand ball', &c.

*Uīadzal*, 'flower-skinned', no doubt refers to the shining blue abdomen. In S. M. 25, line 4, the 4th group from the right, *uīadzaliq*, 'flower-skinned height', seems to denote a mound covered with flowers.

*Eduqalduryasiadzua*. 'The little wine-jar tapper' alludes to the action of the proboscis. For the epithet cf. the *Batrachomyomachia*. As one of the strokes dividing the lines into phrases comes after *eduqi*, and so separates it from the rest of the word, it is possible that the passage should read 'having (i.e. with) a round head and flowery skin, the little wine-tapper!'

*Alduiq*, B. *artuik*, 2nd pers. sing. imp. of *artu*, 'take'. *Artuik* is a corruption of *artu-hi*, 'take thou'. If the reading *iq* or *iaq* is correct, as it seems to be (see *edadiqqalia* below) the corruption is of early date. The final *k* may be traceable in the *κὸγξ ὄμπραξ* of the Mysteries, qy. = B. *iguk obiak*, 'give me the vessels', with the addition of the Aryan *s* and the usual nasalization.

*Adzal*. This value is near enough to *achol* to be used to write it. In that case the idiom is exactly that of 'take care', 'prenez garde', 'nehmen Sie Acht', Welsh 'cymwrwch ofal', and B. 'oartuik'. If, however, *adzal* should be found to have the subsidiary meaning of 'sail', the phrase may mean 'take in a reef', or something equivalent.

*Auiz byiliadzēdud ilubi*, 'embracing a grave with the mouth', i.e. 'as you suck up the wine you are kissing the tomb'. With this rather violent metaphor cf. Milton's

she engorged without restraint

And knew not eating death.

The construction is noteworthy. The sense is evidently 'embracing a tomb as you drink', but it is expressed by a juxtaposition of two participles. There seems to be a general tendency to asyndeton.

*Bilui.* O! O!, oī, oī, lō, lō, lit. 'double o'. Numerals as a rule follow their nouns in Basque, but bi, 2, may precede in composition, e.g. biritchi, 'twin', &c. Oi as an exclamation is found in B. oihu, oyu, a cry. It is just possible that *bilui* is a directive word, '2 uis', and should actually be pronounced *ui ui*, with elision of the *u* in *aldu*.

*Ili daqu idzuli.* This is either the periphrastic 'he has spun round dead', i.e. *daqu*, B. dago, 3rd pers. sing. pres. ind. of *egon*, to be, with the participle, a construction which has largely superseded the inflected indicative in modern Basque, or the phrase is, 'he is dead—spun round!' It might also be rendered 'a thread has turned round, sc. him', taking *iali* as = B. ari, but the gloss is against this on the whole.

The poem is followed by a scholion, as is S. M. 26, examined below.

*Qad' ibyili.* 'Walking a wine cup', i.e. on it. This use of an object without a preposition recurs on the P.D. Cf. Eng. 'to walk the deck', Fr. 'courir les champs', &c.

*Izaleduqi.* On the reading of the sky-character suggested above, which is based on metrical considerations, this phrase must be *izali eduqi*, B. izari eduki, 'holding measure', i.e. 'keeping time', with 'measured tread', 'servans modum'. If the word should be *izalduqi*, corresponding to B. izaltoki, 'sky' (lit. star-place), it is used here for B. \*izartuki, which would be an adverb formed from *izartu*, 'measured'. The meaning is the same in either case. This phrase recurs in a slightly different form in S. M. 8, *Izaleduq' ibyili*.

*Izbidu.* 'Snared', lit. 'threaded'. This verbal adjective is not found in Basque, but it is correctly constructed from *izbi* (B. izpi) 'thread'.

*Edadiqqalia.* B. egarria = edangarria, 'the thirsty one'. It is interesting to note that the Minoan confirms V. Eys's theory that the suffix -garri was originally the verbal *ekarri*, 'led to or inclined (lit. carried) to an action'. See his Dictionary s.vv. *egarri* and *ekarri*.

The note, like many later scholia, is not particularly illuminating. If does, however, tend to confirm the suggestion made above that *eduqi* should be separated from *aldu*, for the tragedy, it states, took place on a wine-cup, not a wine-jar.

It will be seen that this composition is the work of a practised hand. The rhythm goes with a swing, and the breaks fall in the

right places. Note the strong caesura in the first line, which suggests the motionless spider expecting its prey, and the weak caesura in the third, expressing the mock agitation of the writer. Elision prevails, as in Basque, except in the first half of the first line, *Ilubiz albidalbi* || *auizbiduqi*, &c., the first half of the fourth, *ui*||*ili*, &c., and the second half of the fourth, *ili daqu idzuli*. In the first two cases the hiatus is probably permitted by the ictus. In the latter part of the last pentameter it may be due to the same cause, or it is possible that the syllable *qu* is really *qud*, and the final letter has been dropped in Basque. This would be parallel to the loss of the old Latin *d*, e.g. *conclave-d*. Only the acquisition of further material can clear up the point. It is probable that the collections from which this and the following tablet came contained other literary compositions. May we hope that their discoverer will see his way to publish any documents from these sources which seem to be of a connected character?

## S. M. 26

This very interesting tablet is unfortunately imperfect, but enough remains to show the nature of the contents. It is a description of a wine-vessel given in the form of an order to a craftsman, and written in a metre consisting of a hexameter alternating with a verse of three dactyls and an odd syllable. It thus closely resembles the XIIth *Epode* of Horace, which, however, replaces the odd syllable by a spondee.

The script is double boustrophedon; the couplets run from right to left, left to right, and right to left; the last two lines are a gloss, which also runs from right to left, no doubt to mark the fact that it does not form part of the poem. The practice of reversing the order of the script is usual in the supplementary notes to inventories.

- ☞ A door-handle, *byiliadz* or *byiliadzi*. The value has been derived, as stated under B. M., from the sealing on the arrows (S. M. 22) compared with the components of *byiliadzedud*. It is here accompanied by syllabic coefficients supporting the suggested value. It is apparently a side view of a door-pull, showing the two plates for securing it. The meaning is literally 'door-close', the final syllable corresponding to B. *ich* or *ichi*.

☐ A door with reinforcements, already read as *byili*.





☐ A horse's head, *iadz* or *iadzi*, per synecdochen, 'horse'. The latter in B. is *zamari*, apparently a pack-horse, no doubt the only kind in use among the Basques after they were driven to the mountains. If the door-handle sign, however, is *byili-adzi*, and this is followed by the coefficient *byili*, the value of the present sign should be *iadzi*, a word possibly connected with B. *jachi*, 'leaping'. Now in B. a donkey is *asto* (pron. *ashto*). This has no discoverable meaning, and it is doubtful whether in its present form it can be derived from *asinus*. In view of the prevalence of metathesis it is by no means impossible that the original form was *atso*, which could also be written *atcho* or *acho*. (Cf. *itsuli*—*ichuli*, *bitsu*—*bichu*, &c.) It would then = 'a little *ach* or *achi*' ? 'a little horse'.


Traces of such a word seem to survive in Greek. *Briseïs* (*Briseïds*) is also called *Hippodameia*, and *Cretheïs*, *Hippolyte*. *Aïdes* is the *κλυτόπῳλος* (*Il. v. 654*, &c.). *Poseidaon's* animal is the horse. In all these names we have *eï*, *eïd*, or *aïd*. The existence of *iadz* or *iadzi* being assumed, the plural would be *iadziaq*, which, following the B. phonetic rule, would change to *d* (B. *t*) before a vowel. The sound of *dz* (probably nearer to *ch* than *ʒ*) might be dropped as difficult. *Aïdes* would then represent *Iadziadiadz*, 'he of the steeds', *Aïdoneus*, 'he of the good steeds' (or 'the horse-hoof'), *Briseïs*, *Bere-ezi-iadz*, 'self-horse-taming', i.e. for or by herself, and *Poseïdaon*, *Basa-iadziad-yaun* (B. *jaun*) 'Lord of the Wild Horses' (? waves).



A A chest with conical roof, standing on feet, *ubi*. This common sign appears to be used in the generic sense of 'vessel, receptacle', and may be parallel with the Lat. *obba*. The word *obi* in B. = 'grave', 'trench'. Arguing from the sense of *hobiel* (*obi*) 'covered', V. Eys remarks, 'Il est probable que *hobiel* se rattache à *hobi* (*obi*). *Hobi* (*obi*) a pu désigner primitivement *couvert*, et puis comme substantif, fosse, exprimant non pas l'idée d'un trou creusé dans la terre, mais l'idée de quelque chose de couvert . . . Il semblerait que *oi*, *lit*, et *obi*, fosse, ont une origine commune, et contiennent l'idée de couvrir.' So with *oiheski*, 'covered', 'sheltered'.




**T** A T-shaped implement with a vertical stroke at each end of the cross-piece. These strokes were originally horns, as may be seen from S. M. 21. It seems to be a tool for drawing drills in the ground (I believe such a tool is, or was, in use in the Canary Islands), and later for marking out the parallel bands to be painted on pottery. It is obvious that such a tool would be a great convenience. The value at present must be conjectural, but as the sign is followed by *iaq* it evidently has a plural form. This may be taken provisionally as *iadziaq* (B. atzak) 'the fingers' (? surviving in Gk. ἄστακος), presumably the primitive method of drawing such lines. In the present state of knowledge any evidence, however far-fetched, may have some use. It may therefore be noticed that Attica is shaped like a claw.

- |   |                                  |                   |
|---|----------------------------------|-------------------|
|  | A crown, <i>galia</i>            | } already valued. |
|  | A chest, <i>ubi</i>              |                   |
|  | Half a wine-jar, <i>eduqaldu</i> |                   |
|  | A gate, <i>byili</i>             |                   |

 A fist, *uq*, *uqi*, *uqa*, or *uqal* (B. uk-ondo, ukabil, ukal-ondo, &c.). This sign recurs with the meaning of hand or arm in S. M. 8. It may be a variant of the blood-dripping cestus of S. M. 21. See under *eduqi* in B. M.

- |   |                        |                   |
|---|------------------------|-------------------|
|  | A crown, <i>galia</i>  | } already valued. |
|  | A pillar, <i>eduqi</i> |                   |

 A girdle or belt, *ubal*, B. ubal. The circle represents the waist-belt, and the dependent part the cloth drawn up between the legs. It seems to stand for 'belt' in general, as in B., where ubal-arri, 'belt-stone', is a sling (whence, no doubt, Balearis). So in S. M. 24, *galia ubal*, 'crown-belt', seems to be either a tire or a headstall.

**T** A man, headless, delivering a blow. The figure is drawn without a head, as in S. M. 21, line 4, for the sake of convenience. It is identical with the sign in B. M., to which the value *yasa* has been assigned.

⊗ A wheel, already transliterated as *iadzua*. The wheel is spoked, not solid, as in B. M., and no doubt represents a later development. The value and meaning are the same in both cases.

⌒ A scourge with three tails. The cross-pieces probably represent pins or pieces of bone inserted to heighten the effect. This instrument is known to the Basques as *azorri*, and it is therefore fairly safe to assign the value *azuli*, though there are no coefficients.

The evaluation of the next three signs depends on the metre, and is therefore postponed for the moment. The last three of this verse, however, are :

⌘ A wing, *equ*, B. ego. This sign is found in a slightly different form, but with the same value, in S. M. 25, lines 8 and 9.

⌘	A crown, <i>qalia</i>	} already valued.
⌘	Half a wine-jar, <i>eduqaldu</i>	

We now have the beginning and end of a presumed hexameter :

*Azuli* — — — — — *equqal' eduqaldu*

or, if the *i* of *azuli* is elided,

*Azul'* — — — — — *equqal' eduqaldu*.

To return to the characters omitted.

⌘ The fourth sign is a twisted cord hanging from a frame, suggesting a ropery. As it stands by itself it should be a word of common occurrence, though it does not, I think, appear elsewhere at present. It must clearly have a primary meaning allied to its appearance—cord, plait, or twist. This in B. is *estugalli*, 'a tightener'. The word is unlikely to have been modified, and its value is therefore adopted (*esduqali*).

⌘ The next sign is the adze, which everywhere seems to have the meaning of 'make' or 'do', *eqid*, B. *egin*. This word is constantly used in Basque as an auxiliary, and in combination with nouns to form verbs. Combined with the former sign it would give 'rope-making' or 'plait-making', i.e. 'plaiting'. In view of the preceding *azuli* the word should have a transitive sense, 'plaiting or twining a scourge'.

The context shows that this is done by (some proper name). Who, then, is this? Clearly some well-known person associated with chastisement, for he must be easily recognizable, or he would not figure on the vessel. The characters that at once suggest themselves are Minos, Aiakos, and Rhadamanthos.

- ⊗ Now the name ends with the wheel-sign, *iadzua*, already recognized as a diminutive, and should therefore be a patronymic. On the analogy of the first proper name, and perhaps the last, it should be derived from the grandfather. The ancestral name is written with a sign like a reversed sigma, the upper half larger than the lower. This sign stands for a cup in S. M. 28 (see the remarks on that tablet), and is evidently the cup-handle used per synecdochen. It is nowhere spelt in full, but in 28 it is followed by the chest-sign *ubi*, 'vessel', a natural component. The word for cup then should be—*ubi*. This gives *ubiadzua*. If this is so, one more syllable is needed to complete the verse. The grandfather of Minos and Rhadamanthos was Agenor, but that of Aiakos was Asopos, which looks more promising. On this assumption the remaining syllable should be *az* or *as*. In Basque this root (the spellings are interchangeable) denotes 'nourishment', 'satiety'; *ase* = 'filled', 'sated', *asetu*, 'fill with food or drink', &c. A cup therefore in M. would be *azubi*, 'fill-vessel', either one that is filled—and the cup is more often said to be than is any other vessel—or one that fills the drinker, and the proper name would be *Azubiadzua* = Asopiades.

This suggestion is, of course, purely speculative, and is put forward for what it is worth until it can be criticized in the light of fuller knowledge. It may be remarked, however, that The Cup (Asopos) is a not inappropriate name for a river.

- ☞ The next sign looks at first sight like a repetition of the crown, *galia*, but closer observation shows that it differs in several respects. It seems to represent a conical furnace or oven of the Egyptian type, with flames emerging. It is also found in S. M. 13 (1), but that inscription is too scrappy to be read with any certainty at present. As the metre requires a monosyllable, either *qal*, 'flame' (B. gar), or *su* (B. su, 'fire') would fit. The context and the ideogram both point to some word of this kind

† A cross. This seems to be a variant of the skein-sign, *bida*, showing a longitudinal and cross thread. It yields the same value here and in l. 5, also in S. M. 30.

𐤀 A wing, *equ*

𐤁 A cone, *iq* or *iaq*

𐤂 A girdle, *ubal*

𐤃 A parallel, *adziaq*

𐤄 A cone, *iq* or *iaq*

⊗ A wheel, *iadzua*

𐤅 A spouted or handled cup, *qadi*

} already valued.

𐤆 The next object seems to be a torch with a flame and two curls of smoke, broken at an angle, no doubt owing to the difficulty of drawing curves in clay. The value suggested is *bidz* or *bidzu*, corresponding to B. pitz, pitztu, 'kindle', and also perhaps to B. bitsu, 'foam'. In S. M. 28 it is used in spelling *ubidz*, *ubidzu* (B. obich, obitcho), 'a small vessel'. Unless the B. pitztu has been modified from pitsu, which is possible, it almost looks as though the final -tu or -du were pronounced by the Minoans as 'chu' or 'ju'. Cf. the vulgar Eng. 'chune', 'ejucate'.

⊗ A wheel, *iadzua* }  
 † A skein, *bida* } already valued.

† A column with a projecting peg, *qu* or *qud*. This is, I believe, the cursive form of the pillar with suspended bow which occurs with the same value on the P.D. The peg is thus accounted for. The sign combines with the tree and horned shaft to spell *idaqu(d)* in S. M. 25, line 2, with the skein to spell *bidaqu(d)* in S. M. 24, and with the hide to spell *adzalqu(d)*, *ibid*. (See remarks on those tablets.) It would be useful as representing the B. suffix *ko* or *go*, which is used in a genitival, adjectival, comparative, and future sense.

𐤇 Half a vase, *bidaqu(d)*, B. beteko, fut. part. of bete, 'fill'. The value is supported by the two previous signs, and the sense

by S. M. 28 and 24 (in the latter the word is spelt without the ideogram), in both which cases it has a purposive meaning, 'a vessel for filling', lit. 'a vessel which will fill'. See below for a discussion of these tablets. The sign could be used homonymously, hence no doubt its selection.

- |   |                                       |                   |
|---|---------------------------------------|-------------------|
| 𐎶 | A sky and star, <i>izaleduqi</i>      | } already valued. |
| 𐎶 | A cup-handle, ? <i>azubi</i>          |                   |
| 𐎶 | A spouted or handled cup, <i>qadi</i> |                   |

𐎶 A conical vessel with a loop handle and guard at the top, *izali* (B. *izari*), 'a measure'. This sign is also found in S. M. 24, examined below.

- |   |                        |                   |
|---|------------------------|-------------------|
| + | A cross, <i>bida</i>   | } already valued. |
| 𐎶 | A pillar, <i>eduqi</i> |                   |

The last sign of the line is mutilated, but looks like the pruning knife already read as *aldu*.

The next two lines continue from right to left, marking the beginning of the gloss.

- |   |                                       |                   |
|---|---------------------------------------|-------------------|
| 𐎶 | A spouted or handled cup, <i>qadi</i> | } already valued. |
| 𐎶 | A filler, <i>izali</i>                |                   |

𐎶 A tool which might be taken for a double axe, but is more probably a hammer. I have not been able so far to ascertain the B. for this.

- |   |                                       |                   |
|---|---------------------------------------|-------------------|
| 𐎶 | A net, <i>zale</i>                    | } already valued. |
| 𐎶 | A harness-stand, <i>edad</i>          |                   |
| 𐎶 | A spouted or handled cup, <i>qadi</i> |                   |
| 𐎶 | An adze, <i>eqid</i>                  |                   |
| 𐎶 | A cone, <i>iaq</i> or <i>iq</i>       |                   |
| 𐎶 | A horned pillar, <i>idaqu</i>         |                   |
| 𐎶 | An adze, <i>eqid</i>                  |                   |
| 𐎶 | A net, <i>zale</i>                    |                   |
| 𐎶 | A spouted or handled cup, <i>qadi</i> |                   |

lacuna.

These values written out in order give the following results, reading from left to right:

*Byiliadzi byili iadzi ubi iadziaq qalia ubi eduqaldu . . .*

*Byili uq qalia eduqi ubal yasa iadzua*

*Azuli azubi iadzua esduqali eqid equ qalia eduqaldu*

*Su } bida equ iaq ubal adziaq iadzua*  
*Qal }*

*Qadi bidz iadzua bida qu(d) bidaqu(d) izaleduqi azubi . . .*

*Qadi izali bida eduqi (? alduiq)*

*Qadi izali — zale edad qadi . . . qadi eqid iaq idaqu eqid zale qadi . . .*

This divides into words as follows:

M. *Byiliadzub(i), | iadziaqqal(ia) ub(i), eduq|aldu . . .*

B. Bir—obi                      \*atzakgarriobi                      \*edukardo . . .

E. A two-horse vessel,                      a craftsman's vessel,                      holding wine.

M. *Byihuqqal(ia) eduq(i) U|balyasiadz|ua*

B. \*Birukgarria                      eduki                      \*ubaljasachoa

E. The boxer                      having                      Oibalides

M. *Azul(i) Az|ubidz(ua) es|duqal(i) e|qid equ|qal(ia) ed(a) uq|aldu*

B. Azorri                      \*Azobichoa                      estugarri                      egin                      \*egogarria                      eta                      \*ukaldu

E. A scourge                      Asopiades                      cord-making,                      the flier                      and thrusting

M. *Su } bida e|quiaqubal | Iadziaqiadz|ua*  
*Qal }*

B. *Su } bidea \*egoakubal \*Atzakichoa*  
*Gar }*

E. *Flame } path-the wings girdle Eupalamides*  
*Fire }*

M. *Qadibidz|ua bida|qu(d) izal|iduq(i) az|ubi . . .*

B. — pitzchoa                      beteko                      izartoki                      \*azobi

E. Ganymede                      about to fill a heaven                      cup

M. *Qad(i)izal|i bid(a) ed|uq(i) ? aldu|iq.*

B. — izari                      bida                      eduki                      ardoik

E. Vase measure a pair holding of wine

M. *Qadi izali (? yasa) zale, edadqadi*

B. — izari (jasa) zale, edan—

E. A cup measure-striker man, a drinking cup

M. *Qadi eqidaqu(d)*, *eqidzale qadi(daqu?)*

B. — egiteko eginzale —(etako?)

E. A cup about to make cup(s of?)  
make

### TRANSLATION

A two-horse vessel, a craftsman's vessel, holding wine (or a wine-holder) having (thereon) the boxer Oibalides, Asopiades twining a scourge, and the flier Eupalamides pushing his fiery wing-girt way, Ganymede about to fill a heavenly cup, holding a pair of cup-measures (of wine) . . .

*Gloss.* A cup, smith, a drinking-cup, when thou art about to make a cup, maker (of) cup(s).

### NOTES

*line 1:* The first phrase might also be read 'a door-handled vessel', i.e. a vessel with square handles. It is more likely, however, to refer to the capacity. The P.D. refers to a 'two dog' wine-jar, and it is possible that the two kids on the Minoan vase in the tomb of R<sub>h</sub>-ma-Ra point to another measure of quantity. On the other hand, the sense might be merely that the cup is to have two handles in the form of horses.

*Iadziaqqalia*, lit. 'finger-man', or 'man of the *iadziaq*'. The phrase might also mean the 'iadziaq-crowned vessel'. It has been suggested above that this tool was used for drawing parallels. The end of the handle could also be used for punching dots. If by a quite possible accident it were driven through the soft clay horizontally, so that the lower ends of the vertical side-pieces touched the vessel, it would form an E-shaped attachment which might very well give the artist an idea for a convenient handle in which the middle bar would pass between the fingers and strengthen the lift.

*line 2:* *Byiluqqalia*, the boxer, either 'the two-fister' or the 'ball-fister'. The Basque word for a clenched fist, *ukabil* (hand-heap or hand-ball), shows that the latter is the more likely meaning.

*eduqi*, 'having', i.e. 'with'. For this construction, like that of Gk. ἔχειν, see S.M. 30 sub. fin.

*Ubalyasiadzua*, 'little Belt-smiter'. The epithet probably does not refer to the opponent. Ubal is not necessarily a waist-belt; it may be used of a sling. The meaning here seems to be 'cestus-smiter'. *Ubalyasa* I take to be Oibalos, the grandfather of Polydeukes. In that case we have a Minoan explanation of an otherwise meaningless Greek name, probably

Ubal with a Greek ending. *Ubalyasa* should, on Dr. Hall's theory, be represented by Oibalassos, which may be an alternative form of the name. Polydeukes recurs on the P.D.

line 3: *Azubiadzua*. This rendering has been discussed above.

*equalia*, 'the wingman', 'the flier'. This title and the context point to Ikaros (cf. B. igari, 'soar', 'mount').

ed' *uqaldu*. The order is: *ida equalia Adziaqiadzua uqaldu (su) bidea equiaqubal*. The *ida* has been misplaced metri gratia. *Uqaldu* is clearly a verbal form derived from *uqal*. It might mean 'beating a way', but from its use in the Sword Tablet (S.M. 30), see below, it seems more natural to take it in the sense of 'pushing' or 'thrusting'. He is evidently falling in flames, not making strokes to help himself forward.

It would be possible to translate *uqaldu* as 'water-losing', *u-qaldu*, i.e. losing his fiery way in the water, a Pindaric touch, but though the word would be correctly formed (B. ur + galdu = \*ugaldu), the simpler sense is perhaps the better.

There is the chance that the word might correspond to a B. form \*ugartu, 'taking the water', i.e. diving, a word which is found in *K.E.* '04, p. 58, fig. 21.

line 4: *Adziaqiadzua*. The grandfather of Ikaros was Eupalamos, 'Handyman'. This is not an impossible translation of Iadziaq. Was it made because Astakos sounded absurd?

line 5: *Qadibiadzua*. Cf. Etr. Catamita. It has not so far been possible to resolve this name, which evidently refers to some action on the cup. Could the cup-bearer be said to kindle this when he filled or stirred it? If it is not too fanciful, this might be the meaning. Cf. the use of αἰθύσσειν for ἀνασείειν in Soph. Fr. 486.

*Izaleduq' azubi*. The Basque is izartoki or izartegi, 'star-place'. If this equivalent is adopted, the third foot of the line is a spondee. The dactylic character of the metre, however, lends more weight to *izaleduqi*, 'star-hold', of which izartoki may be a contraction or an alternative.

line 6: *Qadizali*. The *izali*, from its conical shape and the position of its handle, would be suitable for dipping into a larger receptacle. It was therefore used, probably, for bringing wine from the jar to the table. From its connexion with *qadi* here it may be supposed that it was emptied into the latter. The question then arises whether *qadi* is a drinking-cup, possibly of a large size, or an intermediate vessel from which the smaller cups were filled. If the curling branch at the side is a spout and not a handle, such a vase would obviously be more convenient for the purpose than a lipless vessel like the *izali*. The fact that Ganymede is said to be about to fill the cup 'holding a pair of *qadizaliaq*', would not prove



that he did so directly. The phrase may even refer to the content of the cup. It may also be noted that in S.M. 28 the bull's head is said to be for filling a *qadi*. If it was anything like the size of those that have been found it would have held an amount almost too large for one person.

There is a further point; was the wine diluted as in later times? If so, the *qadi* would serve as a crater, and probably its content was in ratio to that of the *izali*. Thus if the former held, say a gallon, and it were desired to produce a mixture containing 2 parts of wine out of 5, all that is necessary is to use an *izali* holding  $\frac{5}{3}$  gallon, and fill up with water. For proportionate vessels see *K. E.* '04 and note.

The word *qadizali* recalls *κοτύλη* and its variants. As the accent in Basque, as in English, tends towards the first syllable, *qadzali* would be a likely contraction. If there is any connexion, the *υ* of *κοτύλη* would suggest, what may be suspected on other grounds, that initial Minoan vowels were inflected.

The gloss is unfortunately imperfect.

Although the combination *qadi izali* occurs at the beginning, it is doubtful whether the two words are connected. *Qadi* elsewhere appears alone. It is at least possible that *izali* belongs to the hammer-sign, and refers to the rhythmical stroke. In that case the word for hammer may be *izaliyasa*, 'the measure-beater'. *Iqualiyasa*, 'a portable striker', or 'rising striker' on P.D., is clearly an axe. The inscription on the axe-hammer in S.M. 35 consists of two signs, much conventionalized. The lower is plainly the fighting man (drawn headless as above), *yasa*. The upper is less easily determined. It might be a measure, in which case we have the suggested *izaliyasa*, or a hand holding a measure, which might give *iqali-izali-yasa*, i.e. 'an axe-hammer', or *izali-iqali-yasa*, 'a hammer-axe'.

It will be noticed that the cup-sign occurs in every phrase. Possibly therefore there is a string of synonyms for craftsman, e.g. 'cup-hammerer', 'drinking-cup (maker)', 'one about to make a cup', 'a maker (of cups)'. It is more natural, however, to expect a paraphrase or summary of the poem, as in B.M. and to read:

'A cup, smith, a drinking-cup, when you are going to make a cup, maker of cups.' This is so much in the spirit of some later scholia, that one is almost tempted to regard it as correct.

In any case it seems to be clear that the poem is in the form of an order. Cf. Anacreon 19:

καλλιτέχνα, τόρευσον  
 ξαρος κύπελλον ἡλύ. . . .  
 μή τι ξένον τορεύσης,  
 μή φευκτὸν ἱστόρημα . . .  
 ἀνόπλους χάρασσ' Ἐρώτας κτλ.

We therefore have a second anticipation of classical Greek poetry. The boxer, scourger, and the fall of Ikaros would be examples of the φευκτὰ ἱστορήματα deprecated by Anacreon.

### THE CHARIOT-WHEEL TABLET, S.M. 24

This tablet is not specially interesting, but it contains one important sign which recurs elsewhere. As usual, the items run from right to left, the supplementary notes from left to right.

#### *1st register.*

This begins with the usual picture of the main object recorded, here a wheel preceded by, apparently, some part of the vehicle, either the pole or the trace-bar. The pictures were no doubt used to enable the nature of the principal contents to be seen at a glance, even by an illiterate person. The inscription runs on to the last 5 signs (r. to l.). These are:

𐤇 The tool already transliterated *adziaq*, and regarded as an instrument for drawing parallels. Here, among other stable gear, it no doubt stands for a rake. It would also serve as a pitchfork.

𐤇 A conventionalized tree. From the position in which this stands here and below, it can hardly have any meaning but 'and'. This in B. is eta, and the value *ida* or *eda* is therefore assigned. It will be noticed that if this sign were halved, according to the common Minoan practice, it would give the original form of η. For its use as a conjunction see also S.M. 28 and 30, considered below. For its syllabic use see S.M. 25, line 2, the middle group *byilidaqu(d)*, where it combines with the horned pillar and column, *idaqu(d)-ida-qu(d)*.

Y A harness-stand, already valued as *edad* (see B.M.). Used here as an ideogram.

≡ The tree again, *ida*, 'and'.

H A winder. This has already been given the value *idzuli*, 'turn', and will be found again with that sense in S.M. 25, ll. 2 and 14, S.M. 28 and 30, and *K.E.* '04, p. 58, fig. 21. Here it is an ideogram. Its use, no doubt, was to plait manes and tails. Whether the name of the implement was *idzuli* it is impossible to say at present.

The space between the above signs and the wheel is filled by 2 notes in a smaller hand, running from left to right. Above are the tree, a horse's head, and an evident set of harness with collar, traces, cross-strap, and unbuckled girth, the two halves projecting at the sides. The value cannot be ascertained, but the phrase is: *ida* (?) *iadz* . . ., 'and a horse-harness'. Below is an object which appears to represent a curry-comb with a grip in the middle and guards to keep the sweat off the hands. This is followed by the tree, the harness-stand, and a square receptacle on three legs: *ida edad-edadubi*, i.e. *ida edadubi* 'and a drinking-trough'. This word recurs in *K.E.* '04, fig. 21, where it is written in full, and several times in S. M. 25. Elsewhere it appears to be used of a libation table.

and register. The wheel and yokelike object as before. Then (r. to l.) the door-handle, already valued as *byiliadzi*. Here it seems to have the force of B. biritchi, 'twin'.

The crown, <i>galia</i>	} already valued,
„ belt, <i>ubal</i>	
„ wheel, <i>iadzua</i>	

i.e. *byiliadzi qaliaubaliadzua*, 'the small double crown-belt', either a double head-stall or a pair of tires.

Another wheel and yokelike object, then

the adze, <i>eqid</i>	} already valued.
„ filler, <i>izali</i>	
„ wheel, <i>iadzua</i>	

The reasons for regarding the conical vessel as a measure have been given under S.M. 26. They are strengthened by the combination of the sign with the adze. This also occurs in *K.E.* '04,

p. 58, fig. 21, and *ibid.*, the list of hides. I suggest that the meaning is 'made a size', 'made to fit', 'made to measure', which suits the passages. Here the meaning would be 'made the small size', 'small-made'.

3rd register. Wheel and yokelike object.

The next four signs are a supplementary note. The last three (r. to l.) are:

the hide, <i>adzal</i>	} already valued
the column with peg, <i>qu</i> or <i>qud</i>	
the filler, <i>izali</i>	

= *adzalqu(d) izali*, 'a leathern measure', i.e. *adzal* + the genitive suffix used adjectivally. Cf. B. zillarezko, 'of silver'.

The inserted item (l. to r.) is tree, horse-head, harness, door-handle, = *ida* (?) *iadz*i—*byiliadz*i, 'and a horse-harness, double'.

4th register. Wheel and yokelike object.

The next three small signs are an addition. The last 5 (r. to l.) run

door-handle, <i>byiliadz</i> i	} already valued
cup-handle, (?) <i>azubi</i>	
skein, <i>bida</i>	
column with peg, <i>qu(d)</i>	

B upper part of bucket, *edeubi*

= *byiliadz*i *azubi bidaqu(d) edeubi*, 'a double cup to fill a bucket', or, as suggested under S.M. 26, l. 1. 'A two-horse cup to fill a bucket', *byiliadz*i denoting the capacity. For the use of a cup to fill another vessel, see below S.M. 28.

*bidaqu(d)*, future participle. Cf. S.M. 26, l. 5 and 28, l. 2.

*edeubi*, lit. 'strap-vessel'. See S.M. 19, where the word is spelt in full, *ede-ubi-edeubi*.

The bucket has a lip, no doubt for convenience in filling troughs.

The handle seems to be made of some flexible material such as leather.

The additional item reads (l. to r.) chest, strap, wheel, *ubi-ede-iadzua* (as already valued), i.e. *ubiediadzua*, B. obiedechoa, 'the small vessel-strap', presumably, from the context, the handle of a bucket.

## THE CUP TABLET, S.M. 28

(All signs except the last discussed have the values already attributed.)

*1st register*, r. to l. Picture of a bull's head followed by the winder and half wine-jar, *idzuli eduqaldu*, 'a turning wine-holder', i.e. a vessel that can be tipped. This use of *idzuli* is illustrated in *K.E.* '04, fig. 21, examined below. That these bulls' heads could be used for pouring wine is shown by the next item.

*2nd register*, r. to l. A bull's head followed by a chest, torch, 2-handled vase, horned pillar, cup: *ubi-bidz bidaqu(d)-idaqu(d) qadi*, i.e. *ubidz bidaqu(d) qadi* (B. obich betiko—) 'a small vessel to fill (lit. which will fill) a cup'.<sup>1</sup> The ending *dz* is the B. dim. ch, hitherto found in the wheel-sign *iadzua* with the article attached.

*3rd register*, r. to l.

The number 3 and a picture of a cup, followed by a cup-handle, chest, torch, and 2-handled vase = (?) *Azubi-ubi-bidz bidaqu(d)* . . . i.e. *Azubidz bidaqu(d)* . . . 'a small cup to fill . . .' (?) (a larger cup, as before).

Above is the note (l. to r.): two trees, a flesh-hook, an implement shaped like a pitchfork, and an adze, *ida bi alaqi adzeqid-eqid*, i.e. *ida bi alaqi adzeqid* (B. eta bi ala atzeqin, or autsegin) 'and two engraved in like manner'.

*Ida bi* is the false dual, 'two-trees', already found in the *albi* of B.M. *Ubi bi*, *ulbi*, and *adzal bi* occur on the P.D. It is here used phonetically.

The flesh-hook, *alaqi*, has been commented on under B.M. In the present instance it is used as a homonym, as in S.M. 30 below. The word for 'thus' in Basque is *ala*. *Alaki* is not found; if the above interpretation is correct, it is a pleonastic form made

<sup>1</sup> A thirteenth-century vessel of identical type is preserved in the Musée Cluny. It is in the form of a woman's head, and the liquid escapes through a small tube in the forehead. The projection is only  $\frac{1}{4}$  inch. This would explain the absence in the present drawing of any visible exit. The pipe may have been closed by a stopper with a head in the shape of a rosette, such as occurs in some representations.

by adding the adverbial ending *ki*. Cf. the vulgar English 'thusly'.

¶ The pitchfork-like implement appears to be an engraver's tool. It is of common occurrence on seals, from which the value has been derived. The reading is supported here by the presence of the adze, *eqid*. Atzezin in Basque is 'scratched', lit. 'fingered', 'autsegin' is 'torn', 'bitten'.

Note that the inscription, so far as can be judged, on account of the break, refers only to one cup out of three. The supplementary note therefore was necessary.

### THE SWORD TABLET, S.M. 30

This inscription runs from right to left, with the exception of the two supplementary notes in a smaller hand, which, as usual, are in the opposite direction. It begins with the figure 3 and a drawing of a sword, followed by

the winder, <i>idzuli</i>	} already valued.
the engraving tool, <i>adzeqid</i>	
the half wine-jar, <i>eduqaldu</i>	
the winder, <i>idzuli</i>	

Omit the next three signs, which are an addition (see below). Then

the tree, <i>ida</i>	} already valued
the 2 flowers, <i>bilui</i>	
the strap, <i>ede</i>	
the chest, <i>ubi</i>	

(or the shoe or sandalled foot drawn in profile on B. M., and reading *uđ* or *edeuđ*, B. oñ or *edeoñ*.)

the cross, <i>bida</i>	} already valued,
the wheel, <i>iadzua</i>	
the flesh-hook, <i>alaki</i>	

i. e. (3 swords)

M. *idzuli, adzeqid ed' uqaldu idzuli, ida bilui edud* or *edeubi*.

B.	ichuli	} atzezin	} eta *ukaldu	ichuli	} eta beroyei *edeoñ or *edeobi
	itzuli			autsegin	

E. turning cutting and thrusting turning and for them a shoe or a bucket

M. *bidiadzua alaqi*.

B. *bidacha* \**alaki*.

E. The small pair in the same manner, i.e.

'3 turning swords, cutting and thrusting as they turn, and a sheath for them. The small pair in the same style.'

In the body of the text is added (l. to r.)

the hide, <i>adzal</i>	} already valued,
the wheel, <i>iadzua</i>	
the pillar, <i>eduqi</i>	

i.e. *adzaliadzua eduqi* (B. *achalicha eduki*), 'having the little leather'. Over the item of the sheath is the note,

crown, <i>qalia</i>	} already valued
adze, <i>eqid</i>	
flesh-hook, <i>alaqi</i>	

= *qalia eqid alaqi* 'crown-wrought likewise', i.e. 'wrought with a garland in the same manner'.

#### NOTES

It will be observed that this is a special pattern of sword, and that the shape fits the description. It is not unlike the type of bayonet in use in the British Army some forty years ago, and was evidently employed in the same way, that is to say, it was to be turned in the wound as the thrust was continued, to enlarge the opening. The soldier is still instructed to 'give a twist' before withdrawing his bayonet. The first *idzuli*, however, may = \**idzauri*, 'a cut-wound', i.e. a sword.

*ed' uqaldu*. This phrase has already been noticed in S.M. 26, line 3. It seems to imply a forward movement.

*bilui*. In B.M. this was read as 'twice *ui*', i.e. *ui, ui*. Here it seems to stand homonymously for the B. *beroyei*, from *bero* + *oyek* with the dative suffix *i* and the consequent phonetic change in the termination. Cf. its use in the Bow Tablet, *K.E.* '04, p. 58 mentioned below.

*ede uđ* or *ede ubi*. It is not quite certain whether the second sign is *uđ* or *ubi*. They are much alike. *Edeuđ* would be a shoe (strap-foot), *edeubi* a 'strap-vessel', i.e. a bucket, as in S.M. 19. Whichever it may be, it is clearly a scabbard. We still speak of the shoe of a mast and the bucket of a carbine. The sense is illustrated by the note 'wrought with a garland in the same style', i.e. the flower inlay on the blade is repeated

on the sheath; probably it was either stamped on leather or engraved on metal bands.

'Having the small leather.' Possibly for polishing, or for wrapping up the weapon. The use of *eduqi*, 'having', in the sense of 'with', is parallel with the Gk. ἔχειν. Cf. S. M. 26, line 2.

### S. M. 25

This document is of a different character. It seems to be a description of a series of vase motifs, either a craftsman's record or the list of a merchant's stock. Most of the groups are preceded by a human figure, apparently male. The succeeding signs give the nature of the figure or its accompaniments. For this reason it is not always easy to be sure whether they are syllabic or ideographic representations of details. The inscription reads (r. to l.) as follows; the values are as previously assigned, unless it is otherwise stated.

1. A man, a shoe, a belt; *al edeuđ ubal*=a man, a sandal-strap. The explanation of this unlikely combination is, I think, this. It will be noticed that among the items are several references to belts or straps, e.g. 10, 18, 42. If the inscription, as suggested, relates to vases, these belts most probably refer to the parallel bands of decoration, and are technical names for the various widths. The 'sandal-strap' would be one of the narrowest. It might, of course, also mean a band round the foot of the vase. The other types of belt are discussed in their place.

2. A man, an arrow (lacuna). *Al byiliadz* . . . Probably an archer. It is unfortunate that the ending is lost, as it might have thrown light on the origin of Pelasgos.

3. A man, a large cup, a sky. *Al qadi izaleduqi*. This might refer to a group of a man and a cup beneath a band decorated with stars. In view of 43, however, it is more likely that the 'cup-sky' is a cover.

4. Imperfect.

5. A Y-shaped object, each arm crossed by an oblique line, a gate, a lily or water-plant, *Byiluq(i)*—*byili*—*uq(i)*=*Byiluq(i)* or *byiluqqali*.



The first sign is shown in full in S.M. 13, from which it is clear that it should have five projections at the end of the arms. It seems in fact to be formed on the model of two arms with the fingers of the hands outstretched. As the gate-sign everywhere has the value *byili*, whilst the plant-sign appears to have that of *uq* or *uqi* in *K.E.* '04, p. 58, fig. 21, the word may be read provisionally as *byilug(i)* (B. \*biruk) 'a two-arm' or 'two-hand'. If this represents an actual implement, it may be a double spur attached to a shaft, and used for driving a pair of horses. If it is merely a conventional drawing of a pair of arms, it probably has the meaning here of 'boxer', a 'two-hand' man, 'a man of his hands'. Cf. S.M. 26 for the cognate form *byilugqali*.

The derivation of the plant-sign *uq(i)* is obscured by the fact that the nature of the plant is doubtful. If it is a lily it may be connected with *ui*, flower; if it is a water-plant it may be connected with *ul* water (B. ur, which in composition often becomes *ug*), possibly *uq-i*, 'water-reed', B. \*ugi.

6. A man, a gate, a horned pillar, a tree, a column with projecting peg; *Al byili idaqu(d)-ida-qu(d)=al, byilidaqu(d)*, 'a man, two horned pillars', i.e. a man between two such pillars, a natural design. Cf. 29.

7. A man, a gate, a ewer, a pillar, a thread-winder. *Al byili idzuli eduqi idzuli*.

The ewer-sign will be found in hieroglyphic form in S.M., P. 4 and 5, where it is used as equivalent to the winder. It is probably related to B. ichuri, 'water-encloser'. This is a sink, but the word is generic, and could be used of any receptacle for water. The whole phrase signifies, 'A man holding two turning water-pitchers'. For the use of *idzuli* in the sense of 'revolving', 'tipping', as applied to vessels, see above, S.M. 28, and below *K.E.* '04, p. 58, fig. 21. It may mean, however, that he is swinging them round. Cf. the seal figured in S.M. 69.

8. Lacuna, a flesh-hook, a wing, . . . *alaki equ*. Probably *alaku* (B. alako), 'alike', 'similar'.

9. A man, two goats' heads, a seal. *Al aqelbi byulidzuli* or *byilidzuli*.

The goat has been transliterated provisionally as *aqel* (B. aker),

but it may be *ali* (B. ari) 'a sheep', if there is a confusion between the horned variety and the goat.<sup>1</sup>

The seal is the cursive form of the draughtsman shape figured in S.M. 82 (b), 84, &c. The value will be discussed later in connexion with the seals. Its meaning is literally 'breast-rolling', 'creeping', or 'self-turning' or 'rolling round', and no doubt refers to an original cylindrical form of seal. Cf. Eg. *ḥt*.<sup>2</sup> The word is used on the P.D. of reptiles. Here the meaning is 'two crawling or grovelling goats', i.e. they have been sacrificed, or they may have been drawn in this position for the purpose of the design.

10. A man, a girdle; *al ubal*. This seems to be another type of band (cf. no. 1). It should denote a horizontal band above and a vertical band on each side, leaving a reserve in which the figure stands. In this case, however, it may mean merely 'a man's belt'; i.e. bands as above without a figure.

11. A man, a gate, two flowers, a (?) cestus, a man. *Al byili byilui uqi al*, i.e. *Al byiluq al*.

The ?cestus appears in S.M. 21, l. 1, where it combines with the strap, *ede*, and the pillar, *eduqi*, to spell *eduqi*, 'containing'. The dots represent drops of blood. The word seems to be derived from *uq* + the datival suffix *i*, 'a thing for the hand'.

If the last sign is correctly copied as a man, the meaning is 'a boxer'. If it has been confused with the crown-sign, *qalia*, the meaning is the same.

12. Lacuna, a ? vine-dresser's knife, a net . . . *aldu zale*. The first sign seems to be a variant of that already transliterated *aldu* in B.M. It reappears in *K.E.* '04, p. 58, fig. 21, where it combines with the plant-sign to spell *uq-aldu*, 'water-taking', followed by a dipper. The termination *zale* may be literal, or it may be the occupational ending noted in B.M. and S.M. 26.

13. A man, a cup, a pillar, a caduceus; *Al qadi eduqi qadeduqi*,

<sup>1</sup> The Basque tends to slur the r, e.g. *haritz* becomes *hañtz*. There is therefore just a possibility that *ari* represents *ari* + the agential suffix *k* + the Aryan nominative termination *s*.

<sup>2</sup> The fact that such seals have not so far been found does not prove that they never existed. Even the conservative Egyptians gave them up, and a practical people like the Minoans may have abandoned them at a very early date.

i.e. *qadeduqi*, a herald, lit. 'cup-holding', in allusion to his function of libationer. If, however, the reference is to the staff alone, the word may be *qad-eduqi-a-z*, 'the (thing) of a herald', or 'of the herald'.

The *d* in *eduki* is often slurred in B. The word may also be written *euki*.

14. A man, half a wine-jar, a wheel, half a wine-jar, a foot; *eduqaldu iadzua eduqaldu uđ = eduqalduadzua eduqalduđ*, 'a (or the) small wine-jar on a wine-jar', i.e. one standing on another. This gives the use of the locative suffix *d*, B. n.

15. A man, a cone, a flower, a hide. *Al iaq* (or *iq*) *ui adzal*; 'a man, a height flower-skinned', i.e. a hill or mound covered with flowers. *Ui adzal* is used in B.M. of a bluebottle fly.

16. Four strokes, lacuna. *Lau*, four (B. *lau*). For this value see B.M.

17. A man, a girdle. See 10.

18. A drinking-trough or libation-table, a girdle; *edadubi ubal*. This, I suggest, is another type of band. *Edadubi* occurs in the sense of libation-table in *P. of M.*, vol. ii, fig. 256. It would seem that like a modern altar it could be draped on ceremonial occasions. The use of *ubal* indicates that there was a frontlet with a cloth falling before and behind. It would then be used technically of two broad vertical bands of decoration.

19. Seven strokes, a man, a gate, half a wine-jar, a fish's head. *zazbi* (B. *zazpi*) *al byili eduqaldu iad*; = *zazbi al byileduqaldu iad*, i.e. '7 men, a double wine-jar (or two wine-jars), a fish', or, reading *zazbi al byileduqaldu-ia-d*, '7 men on a double wine-jar'. The large number of figures suits a larger vessel, but in view of 21 it is more likely that there are 7 single figures on as many vases, each of which is accompanied by 2 wine-jars and a fish. For fish sacrifices see Ath. 8.

The fish is found with the value *iad* in S.M. 9 and elsewhere, and in several places on the P.D. The head alone is shown here, the 2 horizontal strokes representing the gills.

20. 5 strokes, a libation-table, a girdle. *Buldz* (or *busd*) *edadubi*

*ubal*. See 18. Bost and bortch, 'five', are found in the Spanish and French dialects respectively. See 18.

21. 45, a man, a goat, a pillar. ?*Byilugibost* (B. Berrogeibost) *al* ?*aqel eduqi*; '45 men holding a goat'. This makes it fairly certain that the reference in all these cases is to separate vases. The group of a man holding a goat would be a very suitable subject for a libation vase, hence the large number. For the combination of goat and wine in sacrifice cf. the epigram of Evenos in the Gk. Anthol.

Κῆν με φάγης ἐπὶ ρίζαν, ὅμως ἔτι καρποφορήσω  
ὅσον ἐπισπείσαι σοί, τράγε, θυομένω.

22. Lacuna, a seal, a flower, . . . *byulidzuli ui*, 'a creeping flower', i.e. a band of floral decoration, or possibly a wave. See P.D.

23. A man, a horse's head, a seal, half a skein. *Al iadz byulidzuli bida*. 'A man, a pair of crawling or rolling horses'. See 9.

24. The next object has four legs, but whether it is an animal or a chair is uncertain.

25. A man, a gate, a water-pitcher, half a wine-jar, a crown. *Al byili-idzuli, eduqaldu, qalia*. 'A man, 2 water-pitchers, a wine-jar, a crown.' These may be separate items, or, if the last two should be combined to read 'a wine-jar crown', the reference may be to a band of floral decoration on the top of the vase.

26. Lacuna, a net . . . *sale*.

27. A man, a gate, a cone, a wing, a goat; *Al byili iaq* (or *iq*) *iqu aqel*, = *Al, byiliqu aqel*, 'A man, a two-winged goat'. Cf. 34.

28. A man, a gate, a libation table, a cone, a fish; *Al byiledadubi iqiad*, = 'A man, two libation tables, on a height'.

29. A man, pillar, wheel, half-skein; *Al eduqiadzua bida*, i.e. 'A man, a pair of small pillars'. Cf. 6.

30. Lacuna, cone, goat . . . *iq aqel* (or *ali*) . . . 'mountain goat'.

31. A man, vine-dresser's knife, pillar, ox-head, wheel. *Al aldu eduqi idi* (B. idi) *iadzua* = *Al aldu eduqi idiadzua*, 'A man seizing (and) holding a little ox'.

*Aldu* here = taking, seizing (B. artu), as in B.M. &c. The 3rd sign of the group is apparently a conventionalized form of the bovine head in S.M., p. 206. It is provisionally rendered *idi*

(B. idi, ox) but may, of course, equally well be bull or cow. The diminutive may refer merely to the size, but as the same form is used in patronymics, the word may mean 'descendant of the bull or cow', i.e. calf. Cf. B. arkume, lamb, lit. 'sheep-child'.

32. Man, muliebria, wing, pillar with peg, net. *Al iqud* (or *iqudze*) *iqu qu(d) zale*, = *Al iqudzale*.

*Iqudze* or *iqud*. This word recurs, with the wing and pillar coefficients, on P.D., and without coefficients in 42 below. Its use here is syllabic. Egonzale in B. is 'a stay-at-home', and if that is the meaning here there must have been certain conventional characteristics to make the figure recognizable as a 'home-keeping youth'. It could, however, be read as a 'striking-net' (cf. B. egotze, 'striking'), i.e. a net with a handle, or 'a striker', i.e. victimarius.

33. Man, cup, two-handled vase, half-skein, flesh-hook; *Al qadi bidaqu bida alaqi*, 'A man, a pair of cup-fillers in the same style.' For *bidaqu* as fut. part. see S.M. 26 and 28. Here it seems to be used substantivally. *Alaqi* may, of course, be ideographic.

34. Man, horse's head, goat; *Al ?iadz aqel*, a horse and goat, or a horse-goat, a fantastic compound of the kind known from Minoan art. Cf. 27.

35. Man, ox-head, adze, sky; *Al idi eqid izaleduqi* = *al ideqid izaleduqi*, B. Ar ideki izartoki. Lit. 'a man opening a sky.' This is meaningless at first sight, but probably he is taking the cover off a vessel. Cf. the 'cup-sky' in 3. Ideki in Basque is to open in any way, and connotes the idea of drawing. V. Eys derives it from idegin, a conjecture supported by the present phrase. See also 43.

36. Man, chimaera, goat's head. Probably the goat is a coefficient, and the Minoan name for chimaera is 'lion-goat' or the like, but this cannot be read at present.

37. Man, ox-head, wheel, half-skein. *Al idi iadzua bida* = *idiadzua bida*. 'A man, a pair of small oxen (or calves).' See 31.

38. Man, 2 flowers, drops falling through a tube, net; *Al bilui idu zale* = *biluiduzale*. Berro in B. is 'brushwood', id appears to have had the sense of 'separate', zale is the occupational termination, qy. 'a wood-cutter'.

39. Man, two libation tables? The second sign is imperfect.

40. Man, oxhead, wheel, half-skein. See 37.

41. Indecipherable.

42. Cup, muliebria, girdle. *Qadi iqudzubal*. This seems to refer to yet another type of band named from a woman's δικάζωμα, i.e. of the same shape as a man's girdle, but narrower.

43. Man, half wine-jar, hide, sky; *Al eduqaldu adzal izaleduqi*; 'A man, a wine-jar, a leather sky', i.e. a wine-jar and a leather cover. The leather sky can hardly be anything else. The word *izaleduqi* seems to be used in the same sense in S.M. 21, last line. Cf. the French use of *ciel* for a bed-tester.

44. Man, gate, fish-head, horned pillar, net; *Al byili iad idaqu(d) zale* = *Al byiliadidagu(d) zale* i.e. 'a man, two nets of fishes', rather than '2 fishing-nets'. The ending *idaqu(d)* corresponds to B. -etako; i.e. *iadiaq + qu(d)* with insertion of euphonic *a* gives *iadiaqaqu(d)*, *Q* before a vowel then becomes *D*, as B. *k* becomes *t*.

45. Man, gate, cone, bent leg, lacuna. *Al byili iq ulladz . . .* = *Al byiliquilladz . . .* 'A man, two high-stepping . . .' The ending is lost, but probably the reference is to two horses. The bent leg occurs on seals passim. The attitude is noticeable; it is not merely a leg, but a leg in movement. The value *ulladz* (B. *urratz*, step) is confirmed by other signs of the same value on seals, and will be considered in that connexion.

46. Man, cone, half wine-jar, libation-table. *Al, iq eduqaldu, edadubi*, 'A man, a tall wine-jar, a libation-table.'

*Iq eduqaldu*. Lit. 'a height-jar'. Cf. *iqzaliaq* and *iqqudubi* on Face B of P.D.

47. A libation-table, a girdle; *edadubi ubal*. See 18.

48. Man, libation-table, crown; *Al edadubi qalia*; i.e. a frontlet for a libation-table, without hangings (see 18). Here it apparently refers to a broad band round the shoulder of the vase.

49. Man, libation-table, half-skein; *Al edadubi bida*, 'A man, a pair of libation-tables.'

50. Man, pillar, libation-table, tube with drops, winder; *Al eduqi edadubi dzu idzuli* = *Al eduqi edadubidzuli*; 'a man holding a

turning libation-table'. For another example of a turning or tilting *edadubi* see *K.E.* '04, p. 58, fig. 21, discussed below, though the word there probably means 'horse-trough'.

The tube-sign has been read *du* in other cases. Its use in spelling *idzuli* indicates the modification of *d* into *dz* already suggested under B. M.

51. 4 strokes, man, indecipherable group, partly obliterated; '4 men' . . .

From the subjects of these vases it would seem that most of them were intended for sacrificial vessels. The bands suggest painted pottery, but there are human figures in nearly every case, and these are not found on painted vases. The reference is more likely to be to metal-work, or to pottery with figures in relief.

### S. M. 31

A vase with the following painted inscription (the values are as previously given).

A bow, *iali*.

2 flowers, *byilui*. The ends of the stalks are crossed. Any one drawing (not incising) the sign as it stands in S. M. 25, line 3, will find that the lower ends tend to take this position.

A fish; the cursive form of S. M., fig. 9, and P. D., *iad*.

A cone, *iaq* or *iq*, reading

*Iali* (or *ili*) *byilu iadiaq*.

*Ilibyilu* appears to correspond to B. illebito, 'the first growth of hair on the face'. The meaning then would be 'face-down fishes'. This is so improbable as to be beyond belief, if it were not that the Gk. ἰουλος signifies both 'face-down' and 'the rainbow wrasse.' The fish was esteemed sufficiently to be sacrificed.

It was presumably reckoned a delicacy, and in the present case was no doubt preserved in oil or pickle, in which case it must have been small enough to pass the spout, or a sauce, garum, was extracted from it.

The number may refer to the fish, if they were small fry, or to the jar.

## TABLET

(Knossos Excavations, 1904, p. 58, fig. 21.)

The signs on this tablet, with one exception, have been valued already. It is therefore a useful check. The inscription begins with the figure 3 followed by a drawing of an ovoid vase lying on its side, supported on two feet, and pouring out liquid. It continues as follows, r. to l.:

## 1st line.

Foot, *uđ*; gate, *byili*; flower, *ui*; foot, *uđ*; bucket, *edeubi*; foot, *uđ*; gate, *byili*; half wine-jar, *eduqaldu*; crown, *qalia*; lily or water-plant, *uqi* or *uqal*; vine-dresser's knife, *aldu*; dipper, *uqaldu*; adze, *eqid*; hide, *adzal*; harness-stand, *edad*; chest, *ubi*.

## 2nd line.

Gate, *byili*; engraving tool, *adzeqid*; half wine-jar, *eduqaldu*; winder, *idzuli*; adze, *eqid*; water-pitcher, *idzuli*; tree, *ida*; flesh-hook, *alaqi*; cross, *bida*; half wine-jar, *eduqaldu*; winder, *idzuli*; tree, *ida*; hide, *adzal*; harness-stand, *edad*; chest, *ubi*; adze, *eqid*; filler, *izali*; gate, *byili*; winder, *idzuli*.

## Note, l. to r.

Girdle, *ubal*; measure, *izali*; pillar with peg, *qu* or *qud*; seal, *byulidzuli*; hide, *adzal*.

i. e. (3 jars).

## 1st line.

M. *Uđ byili uiuđ edeubi, uđ byili eduq' alduqalia, uqaldu*

B. On ibilli \*oioñ \*edeobi, oñ ibilli eduk' \*artugarria \*ugartu

E. A foot-moving flower-bucket, a foot-moving having the handle, a  
foot water-taking

M. *eqid adzaledadubi*

B. egin \*achaledanobi.

E. made a leather drinking-vessel.

## 2nd line.

M. *Byili adzeqid eduqaldu idzuli, eqid idzuli, ida alaqi bida*

B. Bil atzegin \*edukardo itzuli, egin ichuri eta \*alaki bida

E. Round incised wine-jar turning made a water- and likewise a pair  
vessel



M.	<i>edugaldu idzuli ida adzaledadubi eqid izali byilidzuli</i>
B.	*edukardo itzuli eta *achaledanobi egin izari bere itzuli
E.	wine-jar turning and a leather drinking- made to measure self- vessel (or trough) turning

*Note.*

M.	<i>Ubal izaliqu(d) byulidzuli adzal</i>
B.	Ubal izariko *bulidzuli achal
E.	Belt measure of rolled round hide

## TRANSLATION

A foot-moving flower-footed bucket; a foot-moving (vessel) with the handle; a water-dipper converted into a leather drinking-vessel.

A tilting wine-jar, incised all round, converted into a water-vessel, and a pair of the same kind (tilting wine-jars) and a leather drinking-vessel, made to correspond, self-turning.

(Note over the first item).

A leather of the size of the girth, rolled round.

## NOTES

'A foot-moving flower-footed bucket.' These phrases, which would otherwise be obscure, are explained by the picture, though it probably refers to the 3 jars mentioned in the second line. From this we see that the jar has a pointed base. It can therefore be tipped easily, and 'moves on its foot' in a way that would be difficult for a flat-based vessel. The epithet 'flower-footed' refers to the same construction. The cup-like base is in the form of a flower, and was so treated by Egyptian decorators.

*Ud byili.* The inflected *d* is probably equivalent to a vowel, so that the whole phrase represents B. *oñ ibilli*, 'foot-moving'. The word 'vessel' is to be understood, as in the case of *edugaldu*, 'a wineholding', and *idzuli* (B. *ichuri*) 'a water containing'.

*Eduq' aldugalia.* 'With (lit. having) the handle.' This appears to be the sense of the second word, lit. 'the seizer', B. \*artugarria. This is one more instance of the usefulness of the sign *edugaldu*, which can be divided in various ways

*Ugaldu.* Evidently a baler or dipper, from the ideogram. The value must be as given, whether the plant-sign be read *uqi* or *uqal*, since in the second case it would normally coalesce with the first syllable of the following *aldu*. The meaning is probably 'water-taking', from *ul* + *aldu*. In Basque the *r* of *ur* often becomes *g* in composition, e.g. *ugolde*, *ugaste*.

It is possible that this modification survives in Ogygia, 'the high water', as applied to Egypt, the land of the inundation, and Ogyges (? Uqiqiaz), 'He of the high water'. There was a great flood in his reign.

*Egid adzal edadubi*; 'converted into (lit. made) a drinking-vessel'. *Edadubi* seems to be a generic term covering any vessel serving for drinking.

*Byiladzegid*. Probably 'incised all round', as many Minoan jars are, though it could be translated 'made with two fingers', i.e. the two projections, shown in the picture, on which the jar rests horizontally.

*Idzuli*. 'Turning', 'tilting'. The picture shows that it was tipped.

*Egid idzuli*. 'Converted into a water-vessel or pitcher', i.e. an old wine-jar has been used in order to convey a large quantity of water. From this fact and the mention of leather vessels one would be inclined to think that this gear is for a stable.

*Alaqi bida eduqaldu idzuli*. The normal sequence would be *eduqaldu idzuli bida alaqi*. I suspect that *eduqaldu idzuli* is an afterthought, put in by a careful scribe who thought that 'a pair of the same kind' was an insufficient description. He has kept the phrase in the singular, as though *bida* had followed.

*Egid izali*. 'Made to measure', i.e. to hold the quantity of water contained in the jar, an ingenious arrangement, or possibly made of one size. For this phrase cf. S.M. 24 (2nd register) and the Bow Tablet K.E. '04, page 58, where the oxhide is evidently cut to fit the bow; *egid izali byilui adzal idzuli*, 'a rolled hide made to measure for them', sc. the bows.<sup>1</sup>

*Byili idzuli*. Probably = B. bere idzuli, 'self-turning', i.e. to tip out the stale water.

Note on the first item. *Adzal*, 'a hide', *ubalizaliqu(d)*, of 'girth-measure', *byulidzuli*, 'rolled round', i.e. to avoid a shock when the vessel is tipped. This leather band, a very broad one, seems to be indicated by the two cross lines in the picture.

It will be noted that all the above phrases are complete within the divisions.

## THE PHAISTOS DISK

In the light of the information collected above, it is now possible to consider the Phaistos Disk. The provenance of this object is a question outside the scope of the present essay. Whether it is, as I suspect, archaic Cretan, or whether it is written in some

<sup>1</sup> I do not think this is a chariot-frame, as suggested. The drawing seems to be of the skin of an ox-head, showing the eye-hole. It goes with the chafing dish. See the passage describing the softening of the Bow of Eurytos in the *Odyssey*. The word *adzal* seems to be conclusive.

kindred language, it yields to the method already applied to inscriptions admittedly of Minoan origin. Two objections to regarding the Disk as Minoan should, however, be noticed. One is that the dresses are different. This argument does not seem to be conclusive. Dress varies with period and status. A ploughman of the time of Henry II is not less English because he is very unlike a nobleman of the reign of George III. The other is that the signs on the Disk are not found on the tablets. From this, too, I venture, with diffidence, to dissent. Most of the signs on the Disk will, I suggest, be found, either in cursive or slightly modified form, in Cretan. Attention is invited to the comparisons below.

Before the Disk is examined in detail, it may be well to give some account of the conclusions reached. It is a metrical calendar, covering the whole year, with an enumeration of the principal deities, chiefly stellar, governing the events of it. These deities, with one exception, are not named, but are described by their attributes, which in some cases are unmistakable. The nature of the document probably accounts for the shape and style of the tablet. It is round, like the sky, and must be rotated to be read, thus representing the circling year. This is divided into two parts. The one face begins with early autumn, and is probably the first. (It will be remembered that in classical times the Cretan year began on 24 September.) It continues through the winter to early spring. The second face begins with the late spring and ends with the vintage season, i.e. August or early September. This part of the inscription is in hexameters. It has not been possible to determine the metre of the winter portion definitely, owing to the uncertain value of one or two signs, but it seems to be elegiac. If this is so, that metre was probably regarded as appropriate to the more melancholy season. As the summer portion contains longer and more connected descriptions, it will be examined first, although, as stated, it probably comes second in order of time.

## FACE B, S.M. PL. XIII



I. A plumed head. This sign is peculiar to the Disk, and as it has no coefficients its value must be a matter of inference.

The metre everywhere requires a monosyllable merging in the wheel-sign *idzua* or *iadzua* where this follows. As the word is evidently a title, two Basque terms seem to be relevant, *jabe*, 'master', and *jaun*, 'lord'. These are apparently resolvable into *ja* + *pe*, a locative ending with consonantal change, in which case the word = Eng. 'lordship', and *ja* + *on*, 'good', a combination like the OE. 'good lord' in the sense of 'patron'. This leaves the common element *ja*, which is also found in *Jainko*, God (? Eng. *Jingo*), i.e. 'the Exalted', and that value has been adopted as *ya*, although, as there is a cognate B. form *jaube*, the common element may be *Yau*.

It would seem that either *jabe* or *jaun* or both may be found in 'Ιάπων, and that the diminutive *Ya-dz* (here written with the article, *Yadzua*) may occur in the fem. 'Ιάς ('Ιόδς).

- ⊙ 2. A wheel, already valued as *iadzua* or *idzua*. This is presumably the oldest form, solid, as against the later spoked shape. It will be found in cursive script in B.M. dealt with above.
- ⌚ 3. A girdle, already valued as *ubal*. This seems to be another form of the sign noticed in S. M. 24, 25, and 26, omitting the waist-belt and showing the springing of the thighs. The sense and value are those of the tablet form.
- ⌚ 4. Half a skein, already valued as *bida*. This is the true form of the cursive character in B. M. line 1, S. M. 24, line 4, and S. M. 25, lines 8, 10, and 13. The base represents the transverse band, and the vertical line either a binding thread, or, more likely, one of the skein-threads put for the whole.
- △ 5. A cone with a small projection from the top. This everywhere corresponds with the cursive sign already read as *iaq* or *iq*. Its exact nature is obscure. It might be the cone of a libation-table or the hopper of a mill (B. *igar*).
- ⌚ 6. A hide, *adzal*, the equivalent of the cursive upright stroke crossed by 2 horizontal lines, to which this value has already been assigned.
- ⌚ 7. 2 inflected parallel strips. This from the context everywhere seems to have the meaning of 'net', already valued as *zale*.

△ 8. A cone, *iaq* or *iq*; see 5.

✻ 9. A branch with leaves. This sign has not been identified with certainty elsewhere. It supplies where they are needed the participial ending (B. *itu*, *tu*, *du*) and the adjectival ending (B. *tsu* or *etsu*). For this reason, and also because it may well be a perirrhanterion, it has been transliterated *idsu* (B. *itzsu*, *intzsu*, 'dewy').

👤 10. Plumed head, *Ya*; see 1.

🌿 11. A plant with spreading head and leaves all the way down the stem; either a lily or a water-plant. For the cursive form see S. M. 25, line 2, and K. E. '04, p. 58, fig. 21, line 1, where it is read *uq* or *uqi*. If it is a water-plant it would correspond to B. \**ugii*, 'water-reed', from *ur+ii* or *iya* (? Eg. ♀); if it is a lily, to B. \**oigara*, 'flower-crown', a trace of which may survive in Gk. ἡμεροκαλλίς and κάλαθος. In the latter case the value is *uqal*. As it occurs in 2 cases before *al*, and as further the B. for forearm (which it seems to represent homonymously) is *ukal* as well as *uk*, it is not possible at present to decide between the values.

⌚ 12. A pillar with square capital, *eduqi*, the hieroglyphic form of the cursive vertical line crossed by 2 horizontal strokes at the top. See B. M., S. M. 21, 25, 26, and 30, with the remarks thereon.

👶 13. A young child. This is also peculiar to the Disk, on the present information. The value is given by the 2 preceding signs. It is *uqeduqi* or *uqaleduqi*; 'hand-clasping' or 'fist-clenching'. Either meaning is characteristic of an infant.


🌀 14. A girdle, *ubal*; see 3.


🔪 15. This is apparently a vine-dresser's knife, with the value *aldu* (B. *ardo*). See the remarks on the cursive form in B. M. The projection at the end seems to be a leaf. The sign occurs, partly obliterated, in S. M. 26, line 6 (left edge).


🔒 16. A hide, *adzal*; see 6.


🐟 17. A fish, already valued *iad*. This value appears to be latent in B. *arrain* (pron. *arrañ*) 'fish'. It is possible that it is the


same as the Eg. 'in, and that it is also found in θύννος (? *idiad*, ox-fish). Local names of fauna and flora, which would probably be new to invaders, are likely to have gained a footing in the speech of the latter. The sign is used for the locative suffix following the article (B. an). See lines 2 and 4 of this face, and S. M., fig. 9.


 18. A chest, already transliterated *ubi* in B. M., S. M. 24, line 4, 26, line 1, 28, 30, &c., where the round top is replaced by a point, no doubt for convenience in writing.

 19. A torch, *bidz* or *bidzdu* (B. pitz, pitztu). This, it is suggested, is the equivalent of the torch-sign valued in S. M. 26, line 5, and *ibid.* 28. It must begin with *bi*, for it is overlapped by the last syllable of *ubi* here, and by that of *ubibi* in line 4.

 20. A wheel, *iadzua*; see 2.

 21. A wing, *equ*, as already valued. This is a conventional drawing, showing the alula and quill feathers closed, whilst S. M. 26, lines 3 and 4, and 25, lines 8 and 9, show the latter spread.

 22. A pillar with a bow hanging from it. The latter is rather far away from the pillar here, but the metre precludes the reading of two separate signs *eduqi*—*iali*.<sup>1</sup> It is, I suggest, the original of the cursive form, showing the peg without the bow, in S. M. 26, line 5, 25, lines 2 and 9, and 24, lines 3 and 4. As it is used in combination with 21 and 23 both here and in S. M. 25 (32), there can be little doubt that it has the value assigned to it in the latter case, viz. *qud* or *qu*.







 23. Muliebria. The arrangement of dots is similar to that in 35. From a comparison of the last three signs with S. M. 25 (32)—where the present sign precedes instead of following the other two, it seems to be clear that the value is *equd* or *equdze*. In the former case it could be used to write the common Basque auxiliary egon, 'be', of which the 3rd pers. sing. dago (*dagu*) was found in B. M., line 4; in the latter it


<sup>1</sup> Probably two stamps, 12 and 32, have been used to form it. The several positions of the flying bird below show that stamps must have been employed.


could be used in spelling the equivalent of B. egotze, egotzen 'grind or knock to pieces'. The word may be latent in Kotytto.


24. An ear of corn, *iqqali* (B. \*ikgari, 'top-wheat'). The modern Basque is buruka, but the metre everywhere requires an initial vowel, and 29 shows the coefficient *iq*. In lines 2 and 5 it seems to represent B. ekarri and egari respectively. As it would also write the M. equivalents of igari and igarri, it would obviously be a useful sign.
25. A man fighting, already valued *yasa*. There can be no doubt, I think, that this is the sign found in B. M., line 2, S. M. 21, line 4, and S. M. 26, line 2.
26. A flower, already valued *ui*. For the cursive form see B. M. 3 and 4.
27. A fish, *iad*; see 17.
28. An axe. The value is given by the coefficients 29, 30, and 31 as *iqqaliyasa* (B. \*ekarrijasa), 'carried striker', a portable smiter.
29. Cone, *iq* or *iaq*; see 5.
30. Wheat-ear, *iqqali*; see 24.
31. Man fighting, *yasa*; see 25.
32. A bow. This everywhere yields the value *iali* (B. ari), a common termination. On the tablets it is drawn with a stroke (the arrow) entering the angle. Instances are lines 4 and 5 of B. M., and S. M. 31.
33. A girdle, *ubal*; see 3.
34. Lily or water-plant; *uq*, *uqi*, or *uqal*; see 11.
35. A boar's hide. The preceding sign is *uq*, *uqi*, or *uqal*, that following is *aldu*, therefore the intermediate sign can hardly be anything but *qaldu* (B. khallu, pron. khalyu), 'a pigskin'. The aspirate is of little consequence in B. The Navarrese (which alone has the word) favours it; the Spanish dialects do


not, and would presumably have written *kallu*. Is this word preserved in Kalydon?


-  36. A vine-dresser's knife, *aldu*; see 15  
 37. Cone, *iq* or *iaq*; see 5  
 38. Chest, *ubi*; see 18  
 39. Half-skein, *bida*; see 4  
 40. Branch, *idzu*; see 9  
 41. Plumed head, *Ya*; see 1
- } already valued.


 42. Horn, *adal* (B. *adar*. Also = branch).


 43. A double branch, *adalbida*, B. *adarbida*. The value is shown by the coefficients 42 and 44.


 44. Half-skein, *bida*; see 4.


 45. Hide, *adzal*; see 6.


 46. Vine-dresser's knife, *aldu*; see 15.


 47. A star, *izal*; B. *izar*.


 48. Man fighting, *yasa*; see 25.


 49. Dog's head, per synecdochen, *ul*, B. or, 'dog'. The context suits this value. Long-eared dogs of this type are constantly figured.

 50. Two chests, *ubibi*. For other instances of this false dual see the two hides and two dogs on Face A, the two trees in S. M. 28, and the two men in B. M.

 51. A torch, *bidz* or *bidzdu*; see 19.

 52. A branch, *idzu*; see 9.

 53. A wing, *equ*; see 21.

 54. A fetter or hobble, *ezibyili*, B. *ez ibilli*, lit. 'not-walk'. The object occurs among a lot of other gear in the tablet shown in *Palace of Minos*, I, 249, fig. 146. There it seems to be an ideogram. It is used syllabically both here and on Face A, 86.



▷ 55. A bow, *iali*; see 32.

◁ 56. Dog's head, *ul*; see 49.



57. Fish, *iad*; see 17.



58. Man fighting, *yasa*; see 25.



59. A woman clasping her breast, *byulidzi*, B. bular + ichi, 'breast-clasping'. It may be observed once more that the termination *a* or *ar* in Basque is probably always separable, and represents the article in its two forms before a consonant and vowel respectively. *Byulidzi* is one of the few Cretan words known to have survived in Greek. See βολιζνη, 'a female slave'. Its use throughout is syllabic.



60. Branch, *idzu*. See 9.



61. A bird, apparently of the order of runners. It has been rendered provisionally *ulu*, B. ollo, 'fowl'. It is followed in two cases by a word beginning with *u* (in the third it is apparently ideographic), and in accordance with the principle of overlapping values should end with the same letter.



62. A flower, *ui*; see 26



63. A fish, *iad*; see 17



64. A plumed head, *Ya*; see 1

} already valued.



65. Either a pointed rock marked with watercourses, *iadz*, B. aitz or ach, or a horse's ear, in which case it would correspond to the Cretan horse-head (S. M. 25 and 26) for which the value *iadz* or *iadzi* has already been suggested.



66. A hide, *adzal*; see 6



67. A man fighting, *yasa*; see 25



68. Dog's head, *ul*; see 49



69. A double branch, *adalbida*; see 43




70. A cone, *iq* or *iaq*; see 5


} already valued.





71. Half a foot, with the cross-strap and toe-strap of a sandal, *ud*, B. oñ. I do not think this can be a hand. Both the shape


and the straps are against it. For the cursive form see S.M. 25, line 1 (the second sign on the right), *K. E.* '04, p. 58, line 1 (the first sign on the right), and (in profile) B.M., line 3.


 72. Dog's head, *ul*; see 49


 73. Half a foot, *uđ*; see 71


 74. Wheat-ear, *iqqali*; see 24


 75. Dog's head, *ul*; see 49


 76. Net, *zale*; see 7


 77. Cone, *iq* or *iaq*; see 5


 78. Girdle, *ubal*; see 3

 79. Dog's head, *ul*; see 49


 80. Double branch, *adalbida*; see 43


 81. Cone, *iq* or *iaq*; see 5


 82. Half a foot, *uđ*; see 71


 83. Hide, *adzal*; see 6.


} already valued.


 84. A wine-jar, *edugaldū* (B. *eduki ardo*). The following coefficients, *edugi*, *aldu*, here and in the last line, give the value. This and the context show that the object cannot be a lyre. The curls at the sides must be the handles, and the vertical lines probably represent the contents. For the cursive form already noticed see S.M. 26, line 1, 25, line 4, and B.M., line 2 (with the same coefficients).


 85. A pillar, *edugi*; see 12


 86. Vine-dresser's knife, *aldu*; see 15

 87. Cone, *iq* or *iaq*; see 5












 88. Bow, *iali*; see 32

 89. Branch, *idzu*; see 9










 90. Cone, *iq* or *iaq*; see 5

 91. Net, *zale*; see 7

} already valued.

-  92. Cone, *iq* or *iaq*; see 5  
 93. Cone, *iq* or *iaq*; see 5  
 94. Pillar with bow, *qud* or *qu*; see 22  
 95. Chest, *ubi*; see 18  
 96. Girdle, *ubal*; see 3  
 97. Dog's head, *ul*; see 49  
 98. Double branch, *adalbida*; see 43  
 99. Cone, *iq* or *iaq*; see 5  
 100. Half a foot, *ud*; see 71  
 101. Rock or horse's ear, *iadz* or *iadzi*; see 65  
 102. An animal's head with long ears, inverted. The inversion is probably of no consequence; on the other face the flying bird occurs in two positions. It is not easy to say whether the head is that of a donkey or a hare. The whole word, 101 to 105, spells *iadzui liaq*, and the sign might therefore represent the hypothetical *iadzu*, donkey, mentioned under S. M. 26, or (?) *uilla*, 'hare'. This word does not seem to exist in Basque now, but is probably latent in *oillaka*, 'greyhound', 'harrier'. As this is only a link sign, the uncertainty does not prevent the transliteration of the word.

already  
valued.

-  103. Flower, *ui*; see 26  
 104. Bow, *iali*; see 32  
 105. Cone, *iq* or *iaq*; see 5  
 106. Plumed head, *Ya*; see 1  
 107. Woman clasping breast, *byulidzi*; see 59  
 108. Branch, *idzu*; see 9  
 109. Pillar, *eduqi*; see 12  
 110. Cone, *iq* or *iaq*; see 5  
 111. Dog's head, *ul*; see 49

already  
valued.

- |   |   |                            |
|---|---|----------------------------|
| <p>112. Wine-jar, <i>eduqaldu</i>; see 84</p> <p>113. Pillar, <i>eduqi</i>; see 12</p> <p>114. Vine-dresser's knife, <i>aldu</i>; see 15</p> <p>115. Net, <i>zale</i>; see 7</p> <p>116. Cone, <i>iq</i> or <i>iaq</i>; see 5</p> | } | <p>already<br/>valued.</p> |
|---|---|----------------------------|

It will be seen that with half a dozen exceptions these signs have been identified with cursive characters, and that most of them are constantly repeated. This is a severe test of the values attributed. If, therefore, they are found to produce an intelligible result, there is presumptive evidence that they are substantially correct.

Extended in order as before, they run as follows :

*Ya iadzua ubal bidiaq adzal zale iq idzu ya uq eduqi ugeduqi ubal aldu adzal*  
*Iad ubi bidz iadzua equ qu(d)* { *equd* } *iqqali yasa uiad iqaliyasa iq iqqali yasa*  
*iali*

*Ubal uq qaldu aldu iaq ubi bida idzu ya adal adalbida bida adzal aldu izal*  
*yasa*

*Ul ubibi bidz idzu equ ezebyili iali ul iad yasa byulidzi idzu ullu ui iad*

*Ya iadz adzal yasa ul adalbida iq uñ ul uñ iqqali ul zale iaq*

*Ubal ul adalbida iq uñ adzal eduqaldu eduqi aldu iq iali idzu*

*Iq zale iaq iq qu(d) ubi ubal ul adalbida iq uñ iadz* { *iadz* } *ui iali iaq*  
*uilia*

*Ya byulidzi idzu eduqi iaq ul eduqaldu eduqi aldu zale iaq.*

Divided into words they give the following result (the elided syllables are in brackets) :

M. *Yadz(ua) ubalbidaq adzal iqidzu y(a) ugeduq(i) ubald(u) adzal*

B. \*Jachoa ubalbideak achal igitu \*Ja ukeduki ubeldu achal

E. Lordling the girdle-ways the skin stirring Lord fist-clenching bruising  
 skin

M. *Iadubidz(ua)* { *equd* } *iqqaliyasuiad iqaliyasali*  
*equdze*

B. Inyubitua { *egon* } \*ikgarijasoian \*ekarrijasarri  
*egotze*

E. Delighted { *being* } wheat-ear-striker- axing  
*striking* flower-the-on

- M. *Ubaluqald(u), iaqubidadzu ; Ya (a)dalbid(a) adzald(u), izalyasa*
- B. Ubal \*ukaldu, akobitu; \*Ja adarbidea atsartu, \*izarjasa
- E. Cestus-smiting, arriving Lord the path the breath-taking, star-smiter the
- M. *Ulubi bidz(u) egezibyl(i), uliadyasa byulidzuluiaid*
- B. Urobi bitu igesibilli or—jasa \*bulitzuloian
- E. Gulf foaming flight-walking, { dog-fish } { rolling } flower the on  
striker } { crawling }
- M. *Y(a) iadz adzalyas(a), ul adalbid(a) iquđ, ul uđiqqal(i) ulzaliaq*
- B. \*Ja aitz achaljasa or adarbidea ikon, or oñegari \*urzaleak
- E. Lord the, { rock } skin smiter, dog path the climbing, dog foot—  
horse } exhausting water-nets the
- M. *Ubaladalbid(a) iquđ, adzal eduqald(u) iqilidzu*
- B. Ubaladarbidea ikon, achal edukardo igertu
- E. Girdle-path the climbing, skin wine-holding drying
- M. *Iqzaleaq, iqu(d) ub(i); ubaladalbid(a) iquđ, adzuiliaq;*
- B. Ikzareak, ik—obi; ubaladarbidea ikon, ach soilleak;
- E. High nets the, high pillar-vessel, girdle-path the climbing, rocks lonely the;
- M. *Ya byulidzu eduqiaq, ul eduq(i) aldu zaleaq*
- B. \*Ja \*bulichu? echukak, or eduki { artu } zareak  
ardo }
- E. Lord the breast-blinding pillars the dog holding { seizing } nets the  
wine }

## TRANSLATION

The lordling skimming the girdle-tracks; the lord clenching the fist, bruising the skin with delight, hewing at the flower of the teeth, smiting with cestus, driving home; the lord walking on wings the breathless path, the star-smiter, the foaming gulf of waters, dogfish smiter on the creeping flower; the lord, smiter of the horse-hide (or the surface of the rock), the dog climbing the path, the dog emptying with the foot the water-pitchers,

climbing the circling path, parching the wine-skin, the tall jars, the high-stemmed vessel, climbing the circling path, the solitary rocks; the lord clasping to the breast the pillars; the dog holding and seizing the pitchers.

### NOTES

This face of the Disk begins with late spring or early summer, with the passage of the sun into Gemini. All the deities are given the title which has been rendered 'lord', with the exception of the first, who has the word in the diminutive. This might suggest 'lady', regarded as the lesser lord, but as the second character is evidently Polydeukes, it seems to be more likely that the first is the mortal and therefore inferior twin Kastor, especially as it is clearly connected with racing. It has already been suggested under the sign that *yadzua* may correspond to ἰός, and the fact that this title is applied to the she-goat on Face A points in the same direction. It may be recalled for what it is worth that *ecastor* in Latin is a woman's oath, and there may therefore be some special connexion between him and the female sex, but it is safer at present to regard *yadzua* merely as a diminutive. It might, of course, denote sonship, the demigod as opposed to full deity.

It is impossible to judge from this face whether the word is in the nominative or vocative, but as one of the deities on the other side governs the third person, it is probable that the poem is an enumeration, not an invocation.

*Ubalbidiq*, translated 'girdle-tracks', seems to survive in the βαλβίδες of later times. The *ubal* might be the thong stretched across these, but in view of the use of 'girdle-path' below, it is more likely that the reference here is to the shape of the track. It may be observed that the plan of the stadion was in the form of a Minoan girdle, the wall of the ἀφείσις representing the belt, and the sides and σφενδόνη the cloth. The word *bida* has been taken as equivalent to B. *bidea*. There seems to be the possibility that all the vowels were inflected.

*Adzal igidu*. 'Skin-stirring', i.e. brushing, skimming. The second word may be latent in *Derketo* (?B. *Eder-igitu*; 'Beautiful-thrilling'). The compound is, of course, characteristic of agglutinative languages.

*Ubaldu adzal*. 'Bruising skin'. This is right if *ubaldu* may be taken as equivalent to B. *ubeldu*. If not, it must be 'girding on the hide', i.e. the cestus, but this phrase is less likely to be introduced in the middle of a set of fighting epithets.

*Iadubidzua equd*. B. *Inyubitua egon*, 'being pleased', 'delighted', 'loving

or desiring the action'. The Basque, as the Minoan, adds the article to inyubitu, e.g. 'the cat is fond of fish', 'gathua inyubitua da arrainari'. Perhaps 'eager' would translate the word best.

If the second word is to be transliterated *equdze*, it probably = B. egotze or egotzen, the verbal adjective from ego, 'rain blows', but in that case *iadubidzua* governs it in the absolute form, and one would have expected *equdzeali* (egotzeari), with the dative suffix, as in the instance given above. On the whole, as there is less objection to *equd*, and it is as possible as the other value, it is safer to adopt it for the present.

*Iqqaliyasuiad*. 'On the wheat-ear-smiter-flower'. This picturesque expression evidently refers to the teeth, the 'grinders'. The word 'flower' probably applies to the white teeth springing from the gums like a series of buds or petals. It is used in a similar poetical sense below.

*Iqqaliyasali*. Jasa, striker, in Basque makes *jasarri*, 'strike'; *iqqaliyasa* similarly makes *iqqaliyasali*. The latter word is used in the first line of Face A in the sense of 'thresh' (figurative) and it might equally well have had this meaning here, but for the presence of the axe-sign. This makes it probable that the derivation is from *iqaliyasa*, 'axe' (see under that sign, 28), and not from *iq-qali-yasa*, 'thresher'. The meaning then would be 'hewing', lit. 'axing'. These homonyms will always present a difficulty to the translator.

*Ubaluqaldu*. 'Cestus-smiting'. With this phrase cf. *Ubalyasa* in S. M. 26, and the note on it. For *uqaldu* see *ibid.*, line 3 sub. fin. and S. M. 30. In each case it seems to refer to a thrusting movement, here a punch.

*Iqubidzu*. If this is the same as B. akobitu, it must mean 'getting home' on the mark. The identification, however, is not quite satisfactory. The word is spelt *iaq* (or *iq*) *ubi-bida-idzu*, and would therefore naturally be read *iaqubidadzu*. The *bida* must have some force, as *iqubidzu* could have been spelt without it. A possible explanation is that the *d* is very soft, and that the word was scanned by synaeresis *iqubi(d)adzu*, the word *bidadz* corresponding to B. beatz, thumb. In that case the meaning would be 'keeping the thumb up' in accordance with boxing-rules.

Vowels do not, apparently, elide before initial *y*, and some contraction is therefore necessary, unless there is synaeresis of the final *u*, which would enable the line to be scanned

*Ubaluqald', iqubidadzu, Y' ad|albid' ad|xald' izal|yasa.*

Following on the Twins comes Mercury, the astrological ruler of Gemini. His appearance here no doubt coincides with the resumption of coastal trading, as the passage refers wholly to his flight over the sea.

*Adalbida* or *adalbidea*. This word, both here and below, seems to stand

for path, and may survive in Gk. ἀτάρπιτος. The usual explanation that this is so called because it has no turning (it must have been a long path) is not very convincing. Adarbide in Basque would be 'a branch road', which is certainly more natural. If it be objected that the Aryans must have known what a path was, and would have had no need to borrow a word, the answer is that they were in a strange country, and might very well adopt a local name. The English were acquainted with rivers, but there is more than one Avon in England.

*Adzaldū.* The B. atsartu is literally 'taking breath', and is used as in French and English. There are, however, two meanings latent in this phrase, 'pausing' and 'panting'. The first is meaningless here. The second might be that Hermes crosses the sea 'in a breath'. It seems to be more likely, however, from the position of the word that it qualifies *adalbidea*, and recalls the thrill with which the first sailors navigated. The Greeks were never reckless seamen.

*Izalyasa.* The 'star-smiter', 'star-lasher'. This phrase, which has a curiously Scandinavian ring, is apparently a synonym for the sea. It may have a not obvious connexion with B. itsaso, 'sea', but it is still more reminiscent of θάλασσα, for which no satisfactory derivation has been found. This is one of the most likely of loan-words. If Hellenic culture sprang from the union of an inland barbarism with a maritime civilization, the sea and everything connected with it would be apt to maintain Minoan names. It will no doubt be recognized that exact philological correspondence can hardly be looked for in such borrowed words. They may have been corrupted in many ways by a presumably barbarous race speaking a language of a different type.

*Ułubi bidzu.* 'The foaming gulf'. The article is omitted in accordance with the usual B. tendency to economy in grammatical expression, as it has already been added to *adalbide*, the first of the group. So in English it would be possible to say 'the path, sea, and gulf'. The word *ułubi* is put in the dual to avoid crasis. If it had been in the singular, followed by *bidzu*, it would, in consequence of the over-lapping of the signs, have read *ułubidzu*. See S. M. 28, 3rd register.

*Igezibyili.* This corresponds either to B. iges ibilli, 'flight-walking', or egoaz ibilli, 'walking on the wing'. In either case the reference to Hermes is unmistakable. The likeness to the Etr. Casmillus will be noticed.

*Uliadyasa byulidzuluıad.* 'Dog-fish smiter on the rolling (or crawling) flower'. This may refer to fish-spearing, or it may describe the action of the god darting forward like a fisherman striking at a fish and plashing in the water. The 'rolling flower', 'creeping flower', or 'roller flower'



is no doubt the foam on the waves, the patches of which do look very much like sheets of blossom. Cf. also the Gk. use of *ἀνθος* for froth or scum. The dog-fish is presumably the Gk. *κύων*.

Summer advances, and the hot season begins. The presiding god is one with all the attributes of the sun, but, from the constant mention of the dog, is probably Seirios. Thus the stellar character of these deities is maintained.

*Ya adz adzal yasa.* 'Lord horse-hide (or rock-skin) smiter', i.e. striking them with his rays. Both the surface of rocks and the coats of horses grow very hot in summer. The passage therefore does not help to determine the meaning of the sign *adz*, as either sense is appropriate.

*Ul adalbida iquḏ.* 'Dog climbing the path', i.e. the path in the sky. *iquḏ*, 'climbing', lit. 'high-footing'. Oñ, foot, in Basque has the *n* inflected, although this is not the case with *ikon*, 'climb'. Probably this inflection was maintained in Minoan, as the word is written with the two separate signs 'height' and 'foot'. Is it possible that the name of Ikonion is connected with this word? The legend of the image in Strabo sounds like an attempt to explain the unintelligible.

*Ul uḏiqqali ulzaleaq.* 'Dog foot-exhausting the water-pitchers', i.e. drying them up with his foot. It would be a natural thing to say of a vessel from which the water had evaporated that 'the Dog had put his foot in it'. The alternative would be to take *iqqali* as equivalent to *ekarri* instead of *egari*, and translate, 'dog bearing the water-pitchers', but this is not a likely attribute.

The water-nets or water-baskets probably refer to the ancient practice of slinging jars in a net, a trace of which survives in the net-work decoration of some vases. The word recurs in line 1 of Face A among other pottery.

*Ubaladalbida iquḏ.* The dog's head is not, apparently, ideographic, but is used as a coefficient of *ubal*. There seems to be no great distinction between vowels, and *ubal*, *ubol*, or *ubul* may have sounded much the same. In Basque *ubal* is also spelt *abela*. With *ubaladalbida* cf. *ubalbi-daq* in line 1. The reference is presumably to going about the heavens.

*Adzal eduqaldu.* The 'wine-holding hide' or 'leather wine-holder' is no doubt a wine-skin.

*Iqzaleaq.* 'The high nets', i.e. vessels, as above. Cf. *iqeduqaldu* in S.M. 25, No. 46. The word *iq* may have been used like Lat. *altus* in the sense of 'deep', but there is no trace of this in Basque, and it is safer to understand it of tall jars. It is impossible not to be reminded of ἱεῶλῆ, but the identification would be hazardous.

*Iqqudubi.* The 'high-pillar vessel' should be one with a tall stem, unless

there is a reference to a libation-table with its cone and pillars. As this calendar seems to be designed for general use the former interpretation is the more likely.

*Iadzuliaq*. This has been rendered 'the solitary rocks'. If, however, the hypothetical *iadzu*, 'donkey', is correct, the reference may be to Aselli. For the double diminutive, cf. B. neskatchilla.

It will be noticed that the dog's path is mentioned three times. Does this refer to three periods of ten days making up the season of the dog days? At all events the last mention immediately precedes the vintage.

*Ya byulidzu eduqiaq*. 'Lord breast-blinding the pillars'. This picturesque phrase seems to mean 'clasping to the breast', so that the person embraced cannot see. If *eduqiaq* = 'pillars', it may mean that the god embraces two uprights to support himself while he treads the grapes (as the Egyptians hung on to ropes) or, if he is drunk, that he clings to the pillars to save himself. *Eduqiaq* or *eduqiq* might, however, be the past participle of *eduqi*, in which case the meaning is 'embracing, having held, the dog, &c.', but this does not make such good sense.

The reference is probably to Arcturus or Boötes identified, as it would appear, from the subsequent mention of the dog, with Ikarios the inventor of wine, who became a constellation.

*Ul eduqi aldu zaleaq*. 'Dog holding seizing the nets', i.e. probably the pitchers (see under *ulzaleaq* above). It would be possible to read, on the analogy of the latter, *ul eduqi alduzaleaq*, 'dog holding the wine-pitchers', if it were not for the fact that *zaleaq* occupies a division by itself. (It will have been observed that hitherto each division contains a separate phrase.) It is probable, therefore, that *zaleaq* should not be attached to *aldu*, and that the words should be read *eduqi aldu* (B. eduki artu), 'holding and seizing' (a hysteron proteron), as suggested. Alternatively it is 'the wine, the vessels', by hendiadys.

The dog can hardly refer back to Seirios. If the god or star is Ikarios, the dog should be his hound Moira, who also became a star. The identification of the latter with Seirios may be a later confusion. Some identify him with Procyon.

## FACE A



1. Plumed head, *Ya*



2. Wheel, *iadzua*



3. Wheat-ear, *iqqali*
























4. Fighting man, *yasa*


























} already valued.



























- |  |   |                 |
|--|---|-----------------|
| <ul style="list-style-type: none"> <li>» 5. Bow, <i>iali</i></li> <li>⌘ 6. Chest, <i>ubi</i></li> <li>⌚ 7. Half-skein, <i>bida</i></li> <li>⊙ 8. Wheel, <i>iadzua</i></li> <li>⌚ 9. Dog's head, <i>ul</i></li> <li>⌚ 10. Net, <i>zale</i></li> <li>⌚ 11. Cone, <i>iq, iaq</i></li> </ul> | } | already valued. |
| <ul style="list-style-type: none"> <li>⌚ 12. 2 dogs' heads, <i>ulbi</i>.</li> <li>⌚ 13. Wine-jar, <i>eduqaldu</i></li> <li>⌚ 14. Plumed head, <i>Ya</i></li> <li>⊙ 15. Wheel, <i>iadzua</i></li> </ul>   | } | already valued. |





















⌚ 16. Prisoner, *ede*, 'strap'. This sign is found in S. M. 8 in a form intermediate between the complete figure and the cursive form in B. M., &c.

- |   |   |                 |
|---|---|-----------------|
| <ul style="list-style-type: none"> <li>⌚ 17. Half-skein, <i>bida</i></li> <li>⌚ 18. Fish, <i>iad</i></li> <li>⌚ 19. Hide, <i>adzal</i></li> <li>⌚ 20. Net, <i>zale</i></li> <li>⌚ 21. Cone, <i>iq, iaq</i></li> <li>⊙ 22. Wheel, <i>iadzua</i></li> <li>⌚ 23. Hide, <i>adzal</i></li> </ul> | } | already valued. |
| <ul style="list-style-type: none"> <li>⌚ 24. Leather scourge, <i>azulli</i>, what is called in Scotland a tawse. Another form, with three separate tails, has been noticed under S. M. 26</li> <li>⌚ 25. Half a foot, <i>uā</i></li> </ul>  | } |                 |

-  26. Plumed head, *Ya*  
 27. Wheel, *iadzua*  
 28. Woman clasping breast, *byulidzi*  
 29. Bow, *iali*
- } already valued.
-  30. Snake or worm, *byulidzuli*, 'breast-rolling or turning', i.e. crawling. This value will be discussed later in connexion with the seals, on which the sign occurs, e.g. on the great signet used on the cover of S. M.  
 31. Pillar, *eduqi*. Already valued.  
 32. Bird rising off egg, *?dzadal* or *edzadal*. This value is discussed below under the phrase.  
 33. Horn, *adal*  
 34. Spray, *idzu*  
 35. Plumed head, *Ya*  
 36. Wheel, *iadzua*
- } already valued.
-  37. Shuttle, *alidad* (B. \*ari dan, lit. 'a thread is there'. See remarks on *edad* in B. M.)  
 38. Harness-stand, *edad*. This seems to be a primitive form of the trident-shaped sign to which this value has been attributed. It is a forked branch trimmed into shape. The third arm was no doubt a later improvement.  
 39. Spray, *idzu*  
 40. Fighting man, *yasa*  
 41. Shuttle, *alidad*  
 42. Half-skein, *bida*  
 43. Cone, *iq, iaq*  
 44. Plumed head, *Ya*  
 45. Wheel, *iadzua*  
 46. Fowl, *ullu*
- } already valued.

-  47. Pillar, *eduqi*  
 48. Star, *izal*  
 49. Flower, *ui*  
 50. Double thread, *izbi* (see B. M.)  
 51. Plumed head, *Ya*  
 52. Hide, *adzal*  
 53. Vine-dresser's knife, *aldu*  
 54. Arrow (the feathered end), *byiliadzi*  
 see sealing, S. M. 22)  
 55. Pillar and bow, *qu, qud*
- } already valued.
-  56. Figure with shield and club or sword. ? *Euliyaud*. See below.
-  57. Plumed head, *Ya*  
 58. Wheel, *iadzua*  
 59. Bird and egg, *dzadal, edzadal*  
 60. Horn, *adal*  
 61. Plumed head, *Ya*  
 62. Wheel, *iadzua*
- } already valued.
-  63. 2 hides, *adzal bi*.  
 64. Spray, *idzu*  
 65. Lily or water-plant, *uq, uqi, or uqal*  
 66. Double comb, *bidzuqi, bidzuqali*  
 67. Fish, *iad*  
 68. Pillar, *eduqi*  
 69. Plumed head, *Ya*  
 70. Wheel, *iadzua*  
 71. Bird and egg, *dzadal, edzadal*
- } already valued.

- |   |   |                   |
|---|---|-------------------|
|    | 72. Horn, <i>adal</i>                                       | } already valued  |
|    | 73. Plumed head, <i>Ya</i>                                  |                   |
|    | 74. Hide, <i>adzal</i>                                      |                   |
|    | 75. Vine-dresser's knife, <i>aldu</i>                       |                   |
|    | 76. Arrow, <i>byiliadzi</i>                                 |                   |
|    | 77. Pillar and bow, <i>qu, qud</i>                          |                   |
|    | 78. Figure with club or sword and shield, ? <i>Euliyaud</i> |                   |
|    | 79. Plumed head, <i>Ya</i>                                  |                   |
|    | 80. Wheel, <i>iadzua</i>                                    |                   |
|    | 81. Bird and egg, <i>dzadal, edzadal</i>                    |                   |
|    | 82. Horn, <i>adal</i>                                       |                   |
|    | 83. Plumed head, <i>Ya</i>                                  |                   |
|    | 84. Wheel, <i>iadzua</i>                                    |                   |
|    | 85. Hide, <i>adzal</i>                                      |                   |
|    | 86. Hobble, <i>ezebyili</i>                                 | } already valued. |
|    | 87. Fowl, <i>ullu</i>                                       |                   |
|    | 88. Bow, <i>iali</i>  |                   |
|   | 89. Hide, <i>adzal</i>                                      |                   |
|  | 90. Woman clasping breast, <i>byulidzi</i>                  |                   |
|  | 91. Bow, <i>iali</i>  |                   |
|  | 92. Breast, <i>bula</i> (B. bular).                         |                   |
|  | 93. Harness-stand, <i>edad</i>                              |                   |
|  | 94. Bird and egg, <i>dzadal, edzadal</i>                    |                   |
|  | 95. Horn, <i>adal</i>                                       |                   |
|  | 96. Wheel, <i>iadzua</i>                                    |                   |
|  | 97. Plumed head, <i>Ya</i>                                  |                   |

- |   |  |                   |
|---|--|-------------------|
|    | 98. Wheel, <i>iadzua</i>   | } already valued. |
|    | 99. Wheat-ear, <i>iqqali</i>   |                   |
|    | 100. Fighting man, <i>yasa</i>   |                   |
|    | 101. Pillar, <i>eduqi</i>  |                   |
|    | 102. Harness-stand, <i>edad</i>  |                   |
|    | 103. Spray, <i>idzu</i>  |                   |
|    | 104. Arrow, <i>byiliadzi</i>   | } already valued. |
|    | 105. Head, <i>qalia</i> , corresponding to the crown of the tablets.<br>S.M.P. 101 shows the head wreathed, combining the two signs. |                   |
|    | 106. Star, <i>izal</i>   |                   |
|    | 107. Plumed head, <i>Ya</i>  |                   |
|    | 108. Wheel, <i>iadzua</i>  |                   |
|    | 109. 2 hides, <i>adzal bi</i>  |                   |
|    | 110. Spray, <i>idzu</i>  |                   |
|    | 111. Lily or water-plant, <i>uq, uqi, or uqal</i>  |                   |
|    | 112. Double comb, <i>bidzuqi</i> or <i>bidzuqali</i>   |                   |
|    | 113. Wheat-ear, <i>iqqali</i>  |                   |
|    | 114. Fighting man, <i>yasa</i>   |                   |
|    | 115. Arrow, <i>byiliadzi</i>   |                   |
|   | 116. Head, <i>qalia</i>  |                   |
|  | 117. Star, <i>izal</i>   |                   |

The values above have been divided into lines for the sake of convenience, although, as stated, the metre has not been determined exactly.

*Ya iadzua iqqali yasa ial i ubi bida iadzua ul zaleaq ul bi eduqaldu*

*Ya iadzua ede bida iad adzal zale iq iadzua adzal azuli uñ*

*Ya iadzua byulidzi ial byulidzuli (eduqi) dzadal adal idzu ya iadzua alidad  
edad idzu*

*Yasa alidad bida iaq ya iadzua ullu eduqi izal*





- M. *Yadzua dzadal yadz(ua) adzalez ibyul(i) uialadzal*  
 B. \*Jacha chadar \*jacha achalez ibilli oyalachal  
 E. Lordling little- lordling on a { hide } walking linen hide  
     the horn the { horseman }
- M. *Byulidziali byuledad dzadaliadzua yadz(ua) iqqaliyasa*  
 B. Bulicheari \*buledan chadartchua \*jacha \*ikgarijasa  
 E. Teat the at breast- little-horned the lordling wheat-ear-smiter  
     drinking the
- M. *Eduqi da d idzu byiladziziqal(ia) izal*  
 B. Eduki da n itzu \*bilatzigara izar  
 E. Holding is who a dewy 2-horse-head star  
     spray
- M. *Yadz(ua) adzalbidz(u) uqal(i) iqqaliyasa byiladziziqal(ia) izal*  
 B. \*Jach achalbitsu ugari \*ikgarijasa bilatzigara izar  
 E. Lordling the hide foam abundantly thresher 2-horse-head star.

## TRANSLATION

The lordling threshing the back of the vessels, the water-pitchers, the wine-holding olpe; the lordling, fish with a pair of thongs, foul-skinned, leather scourge footed; the lordling, horned reptile, the lordling of (*or* plying) the shuttle, who smites the threads; the lordling, star holding a fowl covertly (*or* in a bunch of flowers); the panting lord of the arrow, Rain-lord; the lordling, little-horn, the lordling with plenteous-foaming hide, holding a fish; the lordling, little-horn, the panting lord of the arrow, Rain-lord; the lordling, little-horn; the lordling walking on a horseman (*or* hide), flaxen-coated; the little horned one, sucking at the teat; the lordling, the thresher, who holds a dewy spray, twin horse-head star; the lordling with plenteous-foaming hide, the thresher, twin horse-head star.

## NOTES

The vintage is followed by the pottery fair, for the wine must be stored.

The first deity is evidently the presiding genius, though it is not clear with what star, if any, it is to be identified. The most likely is Aquarius, which rises in the early autumn. If this is correct, he would seem to have been regarded originally as a man carrying pots, not as a figure pouring water.

*iqqaliyasali*, 'threshing', i.e. tapping the vessels to show that they are sound. Itinerant hawkers used to do this regularly in England forty years ago.

*ubidadzua*. Probably from *ubi* + *adze* (B. *atze*), the back part of the vessels; either the bottom or the side turned away from the spectator.

*ulzaleaq*, the 'water-nets', i.e. water-jars. See note on this word on Face B.

*ulbi eduqaldu*, 'the two dog wine-jars'. This seems to be the origin of the Gk. ὄληνη. The curious name may, as suggested under *byiladzubi* in S.M. 26, refer to the capacity. The article is omitted as superfluous, either because there is already a singular article suffixed to *ubidadzua*, or, more probably, because of the plural article in *ulzaleaq*, in which case *ulbi eduqaldu* is also a plural phrase, in spite of its form. See note on *iqudubi*, Face B.

*edebidiad*. The 'two-thong fish', or 'fish with the pair of thongs'. Evidently a cuttlefish, with reference to the two long arms or filaments. This is borne out by the other epithets, 'foul-skinned', i.e. dirty, either in state or colour,<sup>1</sup> and 'leather-scourge-footed', from the inverted position of the creature at rest, when the arms become feet.

The name may be poetical, and unconnected with σπηρία. For another form see the inscription on the libation-table in S.M. 8, which runs (r. to l.):

Two arms bound with a cord, *ede*, the fist already valued as *uq*, *uqa*, or *uqi* in S.M. 26, two of the creatures identified by Sir Arthur Evans with κολαμάρια (i.e. the whole name + the dual ending *bi*), and a gate, *byili* = *ede-uqi-edeuqi-bi-byili* or *eduq' ibyili*, 'walking thong-hand', presumably a loligo, which shoots along the surface of the water. With *eduqi* or *eduqa* cf. Gk. τεύθος and τευθίς.

The description applies to Cetus, which rises in autumn, when, I believe, the cuttlefish season begins. If the constellation is examined, the resemblance is obvious. It may be that the inscription quoted is a dedication to the celestial body, as it continues '*isaleduq' ibyili*', which can be translated 'walking the heavens', but unfortunately the context is lost.

*Byulidzuli*. A generic term for a reptile, breast-turning or breast-rolling, i.e. crawling. It has been found in a figurative sense on Face B, see note on *byulidzuluhiad*, here it is used literally. The script is mutilated at this point. *Byulidzi* and *iali* are clear, and are followed by the tail of the reptile. There is a square indentation which might be taken for

<sup>1</sup> On the assumption that the spelling is phonetic for *adzal liqidzua*. It is possible, however, that the word should be read literally *adzal iqiadzua*, 'the little leather prong', with reference to the short arms of the fish.

the remains of *eduqi*, in which case the phrase would run 'holding a reptile'. This is tempting, in view of the serpent-holding goddess of Knossos, but it involves the elision of the *u* of *dsadalidzu* with the following *yadzua*, and *u* seems not to elide before *y*.<sup>1</sup> The phrase has therefore been read 'horned reptile', as applying to the deity in person. The diminutive *dz*, in accordance with B. usage, probably qualifies *byulidzuli* (as e.g. B. *gizon chakar* = 'a little old man'). This gives 'little reptile with horns', a vague phrase equally applicable to a cerastes and a snail. The identity is doubtful, but the moon may be meant. 'Little-horn' occurs three times below at intervals as the attribute of a power. This suggests three appearances of the new moon during the winter months. (Cf. the three references to the Dog Star on Face B.) Possibly therefore this is a fuller description of the same deity. It is for consideration whether the Knossos figure is not a lunar image perhaps anthropomorphized into a goddess holding the snakes which once represented her. The model offerings, plants, shells, &c., are such as are governed by the moon in astrology.

*dsadalidzu*. The bird rising off its eggs occurs in three combinations; with the horn (*adal*) only, with the horn followed by the spray already valued *idzu*, and with the horn followed by the wheel-sign, *iadzua*. The last is probably the same as the second with the addition of the definite article *a*.

The first group therefore contains the value of the bird-sign, i.e. it must end with *adal*, not with *idzu* or *iadzua*. Further, if the metre of this face is elegiac, as it seems to be, the scansion of lines 6, 7, and 8 requires that the bird-sign shall not increase the number of syllables in *adal*, i.e. its value must be *adal* preceded by either a consonant or a syllable beginning with a vowel, and eliding with the termination of the foregoing word, which is possible in every case.

It is now necessary to consider the meaning of the sign. The eggs are obviously important, as the bird could quite well have been drawn without them. A single egg is shown in S.M. 21, where the coefficients unfortunately are lost. Two views are possible:

- (1) That the group represents a nest, of which only the contents are shown for convenience. In that case the value might be *edzadal*, B. \**echadar*, 'house-branch', as *adar* signifies 'branch' as well as 'horn'. The modern B. *habi* is believed to be foreign.
- (2) That the bird is a dove, whose eggs are always exposed, and that they have been introduced to identify it. It is possible that the word *adal* has the meaning 'dove', and survives in Atargatis (? *Adaleqadz*,

<sup>1</sup> See remarks on prosody, however.

'Dove-feather'), which in that case would be an alternative to Derketo, which, as already suggested, may = *Edeligidu* (B. eder-igitu). Ktesias would then be both right and wrong in his statement that Derketo was the proper form.

On the assumption that (2) is correct it would be proposed to read *dzadal*, i.e. *adal* with the prefixed diminutive *dz* (B. ch.) = 'little dove'. This would accord with the universal affection for doves, and is further supported by the use of *dzadaliadzua*, in line 9, where it is used of a kid, 'the little-horned one', homonymously, as in ll. 6, 7, and 8, and possibly here. *alidadzsu*. This word is derived from the shuttle-sign *alidad*, with the verbal ending, hence 'shuttling', i.e. weaving, or, if the termination = B. adjectival -tsu, -etsu, 'of the shuttle'. Whether there is a trace of this in Gk. ῥοδονίζω is disputable, but it may survive in Eridanos, the river winding from side to side. The stellar Eridanos, ὁ ἄπὸ Ὠρίωνος ποταμός, which rises about this time, is of a zigzag form which might well represent the track of a shuttle. If the meaning of the word were lost it might have been taken as the name of a river, which the constellation equally resembles.

*yasalidadbidiq*. To be resolved as *yasali da d bidiq*. (B. *jasarri da n \*bidak*) 'who smites the threads', an obvious allusion to the use of the κερκίς in weaving. This is pre-eminently a winter occupation. Has this loom deity been amalgamated with Athene?

The phrase gives three important pieces of grammatical evidence, the 3rd pers. sing. of *izad* (B. *izan*), 'to be', *da*, the relational suffix *d* (B. *n*), and the periphrastic conjugation with *izad*. The last recurs in l. 10. The similar construction with *iqud* (B. *egon*) has already been noticed under B.M.

*ullu eduqi izal*. This phrase may be read in several ways. Literally it is 'bird-pillar-star', which at once recalls the Minoan figures of birds perched on trunks. It might equally well mean 'bird holding a star' or 'star holding a bird', or 'bird having a star', or 'with a star', i.e. starred, as in the early type of gallinaeae.

Whatever sense is to be attributed to the phrase, the star should be one conspicuous in autumn. Of these the most likely are the Hyades, Pleiades, and Orion. The two last seem to appear elsewhere, and therefore it is suggested that the first may be meant, or some other star in Taurus, which borders on Eridanos and Cetus. The rising of the Hyades of course marked the setting in of the autumn rains.

*Uiz uiz*. Actually the value is *ui izbi*, 'flower-twine', 'festoon of flowers', a possible epithet for a constellation. Cf. Tennyson's 'like a swarm of fireflies tangled in a silver braid'.

This value, however, wrecks the scansion. The word has therefore been divided as *uiz bi*, 'uiz 2', and the *bi* has been assumed to have the force of the Egyptian *sp sn*, and to require the repetition of the preceding word. Reduplicated adverbs are not unknown in Basque.

It is possible, however, on this assumption to divide the words into *ui-exui-z*, thus. *Ui* has already been taken as equivalent to 'flower'. *Es* is a root meaning 'to tie'. *Exui* would be 'tied-flower', i.e. a bunch. *Ui-exui-z* then would be 'in or on a flower-tied-flower', i.e. a flower-bunch, or bunch of flowers. This construction has a sufficiently unnatural appearance in English, but not in Basque.

*Euliyad.* This sign, though it has no coefficients, can hardly be anything but Orion with his shield and sword or club. The B.\*EuriJaun, 'Rain-lord', would explain his name, and is eminently suitable to 'aquosus Orion'. The morning setting of this constellation, as is well known, marks the beginning of winter. The two mentions of it may refer to the beginning and ending of the period of setting. In any case the double Orion is found in Egypt and elsewhere.

*Ya adzaldy byiladziqu(d).* 'Panting lord of the arrow'. Orion, according to Diodorus, was a mighty hunter, and the literal sense may therefore be correct. It is possible, however, that *byiladzi* is an equivalent for the parallel implement read as *adziaz* in S.M 26, and means the 'two-finger', i.e. the 'drill-drawer'. Ploughing began at this season in later times, according to Hesiod.

*Yadzua dzadal.* It has been suggested above that this refers to the new moon. *Adzalbidzugali* (B. Achal-bitsu-ugari) 'plenteous foaming hide'. The only creature whose hide foams is the horse. The horse-headed Demeter at once suggests an agricultural deity. Now it will be seen that the epithet recurs in connexion with harvest. Therefore it is reasonable to infer that it is used in the earlier passage of a god or goddess of the seed-time, especially as the ploughing season is just over. This would account for the second epithet, *iad eduqi*, 'fish-holding'. The fish is a natural emblem of reproduction on a large scale—the roe typifies the seeds. The horse-headed Demeter of Sicily held a dolphin.

*Yadzua dzadal.* Another appearance of the horned (?moon) deity.

*Ya adzaldy byiladziqu(d) Euliyad.* A second mention of Orion in the same terms, marking the end of his setting.

*Yadzua dzadal.* The horned (?moon) deity appears for the last time, two months therefore have elapsed.

*Yadzua adzalex ibyuli uialadzal.* This character is evidently important, as it is described at some length. From the attributes it is clearly the she-goat, the star Capella identified with Amaltheia.

*Adzal ezibyuli* could be read as 'the stationary hide', which is meaningless. It may equally well, however, be divided into *adzalez ibyuli*. It has been argued under S. M. 26 that the Minoan for a horse may be *adz* or *adzi*. The value *al* (B. ar) has also been assigned to the figure of a man in B. M. The termination is the locative suffix *z* with the euphonic *e*. The meaning might therefore be 'walking on a horseman'. This at first sight looks as absurd as the other, but it is not, for Capella stands on the arm of Auriga. It may be meant, however, that the goat's hair is so long that she treads on it.

*Uialadzal*. It was suggested under B. M. that the original meaning of the B. oihala or oyala, 'a linen sheet', was 'flower-thread', i.e. vegetable fibre as opposed to woollen. Here we have the word itself, *uiali*, (B. \*oi-ari), 'flower-thread', i.e. flax. The expression 'flaxen-coated', like our 'silky-haired', would represent the smoothest material known to the Minoans. It may be remarked here that as an agglutinative language is necessarily full of compounds, and lends itself to the formation of others, a poetical piece like the present may well contain original words which would be intelligible to the reader even though they did not form part of the ordinary vocabulary.

*Byulidziali byuledad*. If *byulidziali* is equivalent to *byulidzuli*, this phrase, which refers to *dzadalidzua* below, must mean 'grovelling at the teats' (taking *byuledad* as the plural of *byula* with the locative suffix *d*), or 'grovelling-sucking' (lit. 'breast-drinking'), *byul-edad*. In Face B, line 4, however, the penultimate syllable of *byulidzuli* is clearly *u*. In line 3 above, the word ends in *iali*, but there it is spelt with the serpent ideogram *byulidzuli*, of which *iali* may be merely a coefficient coalescing with the *u*. It is therefore safer in the present case to resolve *byulidziali* into the diminutive of *byula* with the article, and locative suffix *i*, *byulidz* + *a* + euphonic *l* (B. r) + *i*, and to translate 'sucking at the teat'.

*Dzadalidzua* would be the 'little-horned' here = 'kid'. The B. noun is *adartcha*, but the diminutive may precede or follow in that language. The description of Capella then ends with 'flaxen-coated', and is followed by that of a kid, stellar or imaginary, accompanying the she-goat. It is too late for the rising of Hoedi.

*Iqqaliyasa*, 'thresher'. Here apparently used in the literal sense. This deity is evidently closely connected with the next. They have this epithet and that of *byiladzizqalia* in common, and both seem to be patrons of the harvest. It may be that one represents the beginning and one the end of the season. This is suggested by the next epithet. As *iqqaliyasa* is an indefinite word, it may stand for reaping as well as threshing, and each deity may preside over one operation.

*Eduqi da d idzu.* 'Who holds a dewy spray.' Qy. a reference to the early vegetation, and possibly the spring rains, if this deity is regarded as sprinkling the crops. For the construction cf. *yasali da d bidiaq* above.

*Byiladzizalial.* This epithet is discussed below.

The foregoing line, if it is correctly transliterated, is in a different metre from the rest, a dactylic tetrameter in place of the usual pentameter. It may be intended as a warning that the composition is coming to an end (though in that case one would have expected the same arrangement on the other face), it might mark the end of winter with a joyful flourish, or it might be an onomatopoeia to represent reaping or threshing.

*Adzalbidzuqali.* 'Plenteous-foaming-hide.' This epithet has been discussed above. It may be the same deity, or merely one of an agricultural character.

*Byiladzizalia.* This might mean 'arrow-headed' or 'arrow-crowned', and in Minoan figures anything is possible, but on the whole, in view of the preceding epithet, I am inclined to think it means 'two-horse-headed'. The pair of horse-headed demons watering the tree is, of course, well known. Is it possible to guess at their identity? Hesiod advises reaping at the rising of the Pleiades, in May, and we are on the threshold of spring. It seems to be possible, therefore, that the Pleiades are meant. There is a curious likeness between the name of the constellation and the word *byiladz* or *byiladzi* above. No satisfactory derivation for the former has yet been suggested. The Double Horse, or Two Horses, is not an impossible title.

On the other hand, it must be admitted that if the Bird Star above is regarded as the Pleiades, and the Hide-foamer as the Hyades, the movements of the heavenly bodies fall into chronological sequence, thus (the actual times, of course, depend on the age of the Disk):

Pleiades set	} early in November.
Orion begins his setting (which takes a month)	
New moon	} Ploughing begins.
Hyades set, say in the middle of November.	
New moon	} early in December.
Orion completes his setting	
New moon	} about the end of December.
Capella rises	

(Interval of some months of inaction.)

Hyades, distinguished by the same epithet	} rise in May or earlier.
as before, and perhaps Pleiades under a	
different name.	
	} Reaping and threshing

It may be thought premature to attempt an analysis of the metres, but as these bear on the transliteration it is perhaps as well to consider them now. It will be seen that the lines are divided by intermediate strokes into phrases of varying length, as follows:

## FACE A

1. *Yadzua iqqaliyasali | ubidadzua, ulzaleaq, | ulbi eduqaldu, |*
2. *Yadzua edebidiad, | adzaliqiadzua, | adzalazuhud, |*
3. *Yadzua byulidzuli | dzadaliidzu, | yadzua alidadidzu, |*
4. *Yasali da d bidiag, | yadzua ullu eduqi izal |*
5. *Uizuis, | ya adzaldy byiladziqu(d), | Euliyaud, |*
6. *Yadzua dzadal, | yadzua adzalbidzuzali, | iad eduqi, |*
7. *Yadzua dzadal, | ya adzaldy byiladziqu(d), | Euliyaud, |*
8. *Yadzua dzadal, | yadzua adzalez ibyuli uialadzal, |*
9. *Byulidziali byuledad | dzadaliadzua, | yadzua iqqaliyasa, |*
10. *Eduqi da d idzu, | byiladziqu(d) izal, |*
11. *Yadzua adzalbidzuzali, | iqqaliyasa | byiladziqu(d) izal |.*

## FACE B

1. *Yadzua ubalbidiaz | adzalididzu | ya ugeduqi | ubaldu azal |*
2. *Iadubidzua | equd(ze) | iqqaliyasuiad | iqqaliyasali |*
3. *Ubaluqaldu | iqubidadzu | ya adalbidy adzaldy izalyasa |*
4. *Uhubi bidzu | egezibyuli | uliadyasa | byulidzuhuiad |*
5. *Ya adz adzalyasa | ul adalbidy iqud | ul udiqqali | ulzaleaq |*
6. *Ubaladalbidy iqud | adzal eduqaldu | iqilidzu |*
7. *Iqzaleaq | iqu(d)ubi | ubaladalbidy iqud | adzuiliag |*
8. *Ya bulidzu eduqiaq | ul eduqaldu | zaleaq |.*

These divisions do not correspond to any regular system of scansion, nor are they limited to any number of words. They do, however, break up the lines into lengths convenient for reading, and form a useful guide amid the mazes of a complicated script. The same method is employed in B.M. and S.M. 26.

Further, pauses in the rhythm are marked by oblique or vertical strokes from the bottom of the line downwards. In order to show this, the inscription has been divided below into feet, and the strokes have been inserted in their place.



## FACE A

1.  $\bar{Y}adz(ua) \check{i}q\check{q}al|\bar{i}y\check{a}s\check{a}l|\bar{i} (u) \check{b}id\check{a}dz|(ua) \bar{u}l\check{z}aleq\check{q} | \bar{u}lb(i) \check{e}duq|\bar{a}ld\bar{u}$
2.  $\bar{Y}adz(ua) \check{e}d\check{e}|\bar{b}idi\check{a}d \check{a}dz|\bar{a}l||\bar{i}q\check{i}ad\check{z}(ua) \check{a}dz|\bar{a}l\check{a}z\bar{u}l|\bar{u}\check{a}$
3.  $\bar{Y}adz\bar{u}a \bar{b}y\bar{u}l|\bar{i}d\check{z}\bar{u}l\check{i} | d\check{z}ad\check{a}l\check{i}d\check{z}|\bar{u} \bar{y}adz(ua) | \bar{a}l\check{i}d\check{a}d|\bar{i}d\check{z}\bar{u}$
4.  $\bar{Y}as\check{a}l\check{i} | d\check{a} d \bar{b}id\check{i}|\bar{a}q || \bar{y}adz(ua) \bar{u}ll\bar{u}|\check{e}duq(i) \check{i}z|\bar{a}l$
5.  $\bar{U}iz\bar{u}|\check{i}z \bar{y}a \check{a}dz|\bar{a}ld\bar{u} \bar{b}y\check{i}|\bar{l}ad\check{z}i\check{q}u(d) | \bar{E}ul\check{i}|\bar{y}a\bar{u}d$
6.  $\bar{Y}adz\bar{u}a d\check{z}ad|\bar{a}l \bar{y}adz(ua) \check{a}dz|\bar{a}l||\bar{b}id\check{z}u\check{q}al(i) | \bar{i}ad \check{e}duq|\check{i}$
7.  $\bar{Y}adz\bar{u}a d\check{z}ad|\bar{a}l \bar{y}(a) \check{a}dz|\bar{a}ld\bar{u} \bar{b}y\check{i}|\bar{l}ad\check{z}i\check{q}u(d) | \bar{E}ul\check{i}|\bar{y}a\bar{u}d$
8.  $\bar{Y}adz\bar{u}a d\check{z}ad|\bar{a}l \bar{y}adz(ua) \check{a}d|\check{z}al||\check{e}z \bar{i}b\bar{y}ul(i) | \bar{u}i\check{a}l\check{a}d\check{z}|\bar{a}l$
9.  $\bar{B}y\bar{u}l\check{i}d\check{z}i\check{a}l|\bar{i} \bar{b}y\bar{u}led|\bar{a}d d\check{z}ad\check{a}l|\bar{i}ad\check{z}\bar{u}a, \bar{y}adz(ua) \check{i}q\check{q}al\check{i}|\bar{y}as\check{a}$
10.  $\bar{E}duq\check{i} | d\check{a} d \bar{i}d\check{z}\bar{u} | \bar{b}y\bar{i}l\check{a}d\check{z}i|\check{q}al(ia) \check{i}z\check{a}l$
11.  $\bar{Y}adz(ua) \check{a}dz\check{a}l|\bar{b}id\check{z}u\check{q}al(i) | \check{i}q\check{q}al\check{i}|\bar{y}as\check{a} \bar{b}y\check{i}|\bar{l}ad\check{z}i\check{q}al(ia)|\check{i}z\check{a}l.$

## FACE B

1.  $\bar{Y}adz(ua) \bar{u}b\check{a}l|\bar{b}idi\check{a}q \check{a}dz|\bar{a}l \check{i}q\check{i}d\check{z}|\bar{u} \bar{y}(a) \bar{u}q\check{e}d|\bar{u}q(i) \bar{u}b\check{a}l|\bar{d}(u) \bar{a}dz\check{a}l$
2.  $\bar{I}ad\bar{u}b\check{i}d\check{z}(ua) | \bar{e}q\check{u}d(ze) \check{i}q|\check{q}al\check{i}y\check{a}s|\bar{u}i\check{a}d \check{i}q|\check{q}al\check{i}y\check{a}s|\bar{a}l\check{i}$
3.  $\bar{U}b\check{a}l\check{u}q|\bar{a}ld(u) \check{i}q\check{u}|\bar{b}id\check{a}d\check{z}\bar{u} \bar{y}(a) \check{a}d|\bar{a}l\bar{b}id(a) \check{a}dz|\bar{a}ld(u) \check{i}z\check{a}l|\bar{y}as\check{a}$
4.  $\bar{U}l\bar{u}b\check{i} | \bar{b}id\check{z}(u) \check{e}q\check{e}z|\bar{i}b\bar{y}ul(i) \bar{u}l|\bar{i}ad\check{y}as\check{a} | \bar{b}y\bar{u}l\check{i}d\check{z}\bar{u}l|\bar{u}i\check{a}d$
5.  $\bar{Y}(a) \check{a}dz\check{a}d\check{z}al|\bar{y}as(a) \bar{u}l \check{a}d|\bar{a}l\bar{b}id(a) \check{i}q|\bar{u}\check{a} \bar{u}l \bar{u}\check{a}|\check{i}q\check{q}al(i) \bar{u}l|\check{z}ale\check{a}q.$
6.  $\bar{U}b\check{a}lad|\bar{a}l\bar{b}id(a) \check{i}q|\bar{u}\check{a} \check{a}dz|\bar{a}l \check{e}duq|\bar{a}ld(u) \check{i}q\check{i}l|\bar{i}d\check{z}\bar{u}$
7.  $\bar{I}q\check{z}aleq\check{q}, |\check{i}q\check{q}u(d) \bar{u}b(i) | \bar{u}b\check{a}lad|\bar{a}l\bar{b}id(a) \check{i}q|\bar{u}\check{a} \check{a}dz\bar{u}|\bar{i}lia\check{q}$
8.  $\bar{Y}a \bar{b}ul\check{i}d\check{z}(u) | \bar{e}duq\check{i}|\bar{a}q || \bar{u}l \check{e}duq|\bar{a}ld\bar{u} \check{z}al|\bar{e}aq.$

The vertical stroke marks an emphatic pause. In hexameters it sometimes corresponds to a caesura in the third foot, e.g.

Face A, line 1.  $\bar{Y}adz' \check{i}q\check{q}al\check{i}y\check{a}s\check{a}l || 'bid\check{a}dz' \bar{u}l\check{z}aleq\check{q} \bar{u}lb' \check{e}duq\check{a}ld\bar{u}$

„ „ „ 9.  $\bar{B}y\bar{u}l\check{i}d\check{z}i\check{a}l\bar{i} \bar{b}y\bar{u}ledad || d\check{z}ad\check{a}l\check{i}ad\check{z}\bar{u}a \bar{y}adz' \check{i}q\check{q}al\check{i}y\check{a}s\check{a}$

„ B „ 6.  $\bar{U}b\check{a}lad\check{a}l\bar{b}id' \check{i}q\check{u}\check{a} || \check{a}dz\check{a}l \check{e}duq\check{a}ld' \check{i}q\check{i}l\check{i}d\check{z}\bar{u}.$

In Face A, line 1, it also occurs at the end of the fourth foot:

*Yadz' iqqaliyasali || 'bidadz' ulzaleaq || ulb' eduqaldu.*

Two reasons are possible:

- (1) If the line is read aloud with attention to the sense it will be found that a well-marked pause naturally falls in that place.
- (2) It was intended to emphasize the fact that the *iaq* forms part of *ulzaleaq*. Face B, line 7, uses *iqqu(d)ubi*, 'high-stemmed vessel', and *iqzaleaq*, 'tall jars'. Without the stroke, therefore, the present line might have been misread or misheard as *ulzal', iquib'-eduqaldu*.

In Face B, line 7, the stroke is at the end of the first foot:

*Iqzaleaq || iaqu(d)ub' ubal adalbid' iquð adzuiliaq*

which might seem an unnecessary emphasis, if it were not that the first word ends and the second begins with *iaq*. It was worth while to take precautions against the dreadful combination *iaq-iaq*. In the other instances of clashing syllables noted below this cannot be done.

The oblique stroke marks a slighter pause. In hexameters it may denote a caesura in the fourth foot, as in Face B, line 5:

*Y' adzadzalyas' ul adalbid' iquð || ul uðiqqal' ulzaleaq*

or in the fifth, as in lines 1 and 7:

*Yadz' ubalbidiaq adzaliqidzu y' uqeduq' || ubald' adzal  
Iqzaleaq iaqu(d)ub' ubaladalbid' iquð || adzuiliaq.*

This suggests that the true reading of line 1 is

*Yadz' ubalbidiaq adzaliqidz' y' uq(al)eduq' || ubald' adzal*

otherwise the slanting stroke might have been expected after *iqidzu*. Similarly in Face A, line 3, it may be right after all to read

*Yadzua byulidzul' (eduqi) dzadalidz', yadz' alidadidzu,*  
since there is no stroke after *dzadalidzu*. The translation is not affected appreciably in either case.

The oblique stroke also occurs in the middle of the second foot in Face A, lines

6. *Yadzua dzadal || yadz' adzalbidz' uqal' iad eduqi*

7. *Yadzua dzadal* || *y' adzaldubyladziqu(d) Euliyaud*  
 8. *Yadzua dzadal* || *yadz' adzalez ibyul' uialadzal*.

This is the only place in the verse which is capable of a true caesura. In 7 the epithet is probably regarded as forming part of the name of Orion, so that the latter part of the verse is all one, whilst in the pentameters there is obviously no caesura in the usual sense. The place for it falls on the division of the components both in 6 and 8 above (*adzal* || *bidz'* and *adzal* || *ez*) and also in 2:

*Yadz' edebidiad adzal* || *iqiadz adzalazuluđ*.

This was probably regarded as a pause sufficient for the purpose, though not strong enough to be marked.

In Face B, line 5, the oblique stroke is at the end of the sixth foot:

*Y' adzadzalyas' ul adalbid' iquđ ul uđiqqal' ulzaleaq* ||.

Why then insert it? The explanation seems to be that it is in the nature of a comma, intended to separate the phrase from the following *ubaladalbid' iquđ*, with which it might otherwise have been connected; 'emptying with his foot the water-jars as he climbs', &c.

The scansion is mainly by accent, though regard is also paid to quantity, which is as elastic as that of Homeric Greek. Thus *yadz'*, usually long, is shortened in 6, 8, and 9 of Face A, whilst *ulzaleaq* appears as a dactyl in line 1 and as an amphibrachys in line 5 of Face B. It is probable that the *l* was slurred as in the B. compounds of *ur*, which tend to become *u-*, and that the word sounded more like \**uzaleaq*. Cf. the similar lightening of the letter in Face B, line 1: *yadz' ubalbidiaq*, &c.

*Dz* must also have been a soft consonant, or the following combinations would have been impossibly harsh:

- Face A, line 2. *Yadz' edebidiad adzaliqiadz adzalazuluđ*.  
 „ „ „ 6. *Yadzua dzadal, yadz' adzalbidz' uqal', iad eduqi*.  
 „ „ „ 8. *Yadzua dzadal, yadz' adzal*, &c.

Face A, line 11. *Yadz' <sup>u</sup>adzalbidz' uqali, &c.*

„ B, „ 5. *Y' <sup>u</sup>adzadzalyasa, &c.*

Elision appears to be constant. Final *u* elides regularly before another vowel with one exception in Face A, line 4:

*Yasali da d bidiaq, yadz' ullu eduq' izal.*

This is accounted for by the fact that final *u* elsewhere corresponds to B. *u*, whilst here it represents B. *o* (*ollo*). There was no doubt some difference in the vocalization, probably a lengthening of the vowel, which, as in the case of *ω*, was allowed to stand and was treated as short before a succeeding vowel.

Diaeresis is probable. It has been assumed (though it is not essential) in Face A, line 4:

*Yasali da d bidiaq, &c.*

In view of the pronounced dactylic character of the rhythm it is likely that diaeresis was employed to avoid a spondee. Thus in Face A, line 7 it would be possible to eliminate the spondee in the second foot by resolving *Ya* into *Iä*. In Face B, line 6:

*Ubaladalbid' iquä, adzaleduqald' iqilidzu,*

the same thing would be possible (if there is anything in the idea that all initial vowels were inflected) by resolving *'adzal* into *iadzal*. It may be, however, that the presumably inflected *d* of *iquä* counted as an extra syllable.

















The general characteristics of B.M. are found here also; the lines are scientifically constructed, and are varied in such a way as to ensure the rapidity of rhythm essential to good verse. The most ancient specimen of the hexameter and elegiac compares favourably in this respect with many later products. It has the life and movement of a Minoan fresco. Nor is the expression contemptible. The picture of Hermes faring over the foam, the savage energy of Polydeukes, and the account of Seirios, so suggestive of heat and silence, all have the true poetic ring. Such are the results of attributing Basque values to the characters. In leaving them to the consideration of students I submit that—





































1. Though they are unexpected, they are not unreasonable.
































2. The constant repetition of many signs is a strong argument in favour of the values assigned to them.
3. The speculative values of the others can often be deduced from the context.
4. The values assigned are constant throughout.
5. The grammatical constructions are the same throughout, and tally with those in Basque, which are *sui generis*.
6. The phrases are complete within the divisions.
7. The rhythmical pauses are correct.
8. The translations based on the values are self-consistent and allusive, and in some cases show characteristic artistry in the original.

Is it probable, or even possible, that all these features are due to mere coincidence?














# PROVISIONAL LIST OF SIGN VALUES

<i>Cursive.</i>	<i>Hiero- glyphic.</i>	<i>Minoan.</i>	<i>Basque.</i>	<i>Subject.</i>
þ		au	ao	mouth
z		al	ar	man
A 8		iad	? ain (in arrain)	fish
Δ X		iaq or iq	iak, ak, ik	cone
Δ		uñ	oñ	foot
		ul	or	dog
		ya or yau	ja(be); ja(un); jau(be); jau(n)	chief
γ		bidz or bidzu	pitz or pitztu	torch
þ		qu or qud	ko, go	bow-pillar
8		? su or qal	su, gar	oven, furnace
		adal	adar	horn, branch
‡		adzal	achal, azal	hide, leather
V		? adzi		horse
H		adziaq	atzak	parallel (lit. fingers)
		? adzu; uilla	asto; oilla	ass, hare
γ m		aldu	ardo	vine-dresser's knife = wine
Y		edad	edan, -etan	harness-stand
X		ede	ede	strap, thong
M		equ	ego	wing

<i>Cursive.</i>	<i>Hiero- glyphic.</i>	<i>Minoan.</i>	<i>Basque.</i>	<i>Subject.</i>
		equd, equdze		muliebria
		eqid	egin	adze
		iadzua, idzua	cha, icha	wheel
		iali	? il (argi)	bow
		idzu	intzu, -etsu	spray = dew
		ubi	obi	vessel
		ida		tree
		idi	idi	ox
		izal	izar	star
		izbi	izpi	tied thread
		ui	*oi	flower
		ulu	ollo	bird, fowl
		ubal	ubal	belt
		uq, uqi	uk (ondo, &c.)	fist, cestus
		uqii, uqal	*ugii, ugar	lily or water-plant
		yasa	(euri) jasa	striker
		bida	(iz)pida	skein
		bilui	*biroi	two flowers
		biluq	*biruk	two arms
		bizal	bizar	beard; poss. also shell
		byili, byuli	? (i)billi	door

<i>Cursive.</i>	<i>Hiero- glyphic.</i>	<i>Minoan.</i>	<i>Basque.</i>	<i>Subject.</i>
		byuli	bular	nipple, breast
		dzadal	? chadar	dove
		lau	lau	four
		qadi		wine-cup or spouted vase
		qalia	gara (ondo, &c.)	crown
		qaldu	khallu	boarskin
		zale	zare, sare	net, basket
		adzeqid	atzegin, aut- segin	engraver's tool
		alaqi	aragi	flesh-hook=meat
		alidad	*ari-da-n	shuttle
		azuli	azorri	scourge
		edeubi	*ede-obi	bucket
		eduqi	eduki	pillar
		euli	euli, uli	fly
		idaqu(d)	-etako	ox-pillar
		idzuli	itzuli	winder
		idzuli	ichuri	water-jug
		iqqali	*ikgari	wheat-ear
		izali	izari	measure
		bidaqu(d)	betiko	vase
		byiliadzi	*bilatchi	arrow



<i>Cursive.</i>	<i>Hiero- glyphic.</i>	<i>Minoan.</i>	<i>Basque.</i>	<i>Subject.</i>
∩		byiliadzi		door-pull
		byulidzi	*bulichi	woman clasping her breast
Ƴ		qaduqi, qaduqiaz		caduceus
		adalbida	*adarbida	double branch
𐀓		edadubi	*edanobi	drinking-trough or libation-table
𐀔		eduqaldu	*edukardo	wine-jar
𐀕		ezibyili, ezibyuli	*ezibilli	fetter or hobble
𐀖		? esduqali	estugarri	cord
		uqeduqi	*ukeduki	young child
𐀗		izaleduqi	izartoki	sky
𐀘		uladz eqid	urraz egin	step
𐀙		biduqali, bid- zuqali	*bidugarri, bitsugarri	comb (fleece- or curry-)
𐀚		byilidzedud or byulidzedud	*birichedon or bulichedon	embrace
𐀛		byulidzuli	*bulitzuli	seal
		byulidzuli	*bulitzuli	reptile
		Euliyaud	*Eurijaun	Orion
		iqaliyasa	*ekarrijasa	pole-axe

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